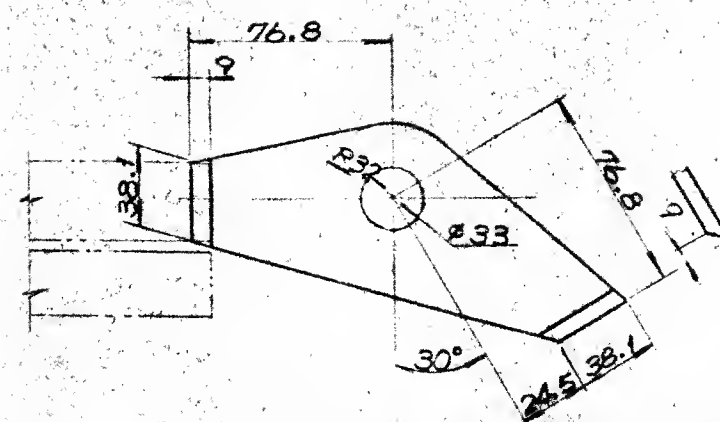


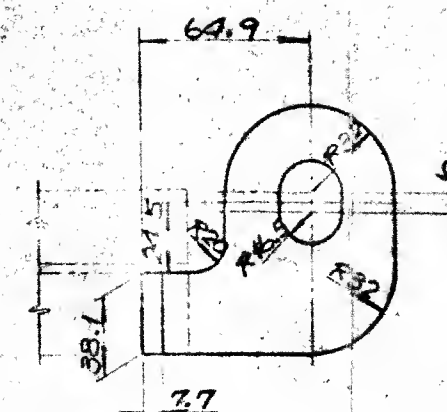
SECTION "A-A"

MANHOLE

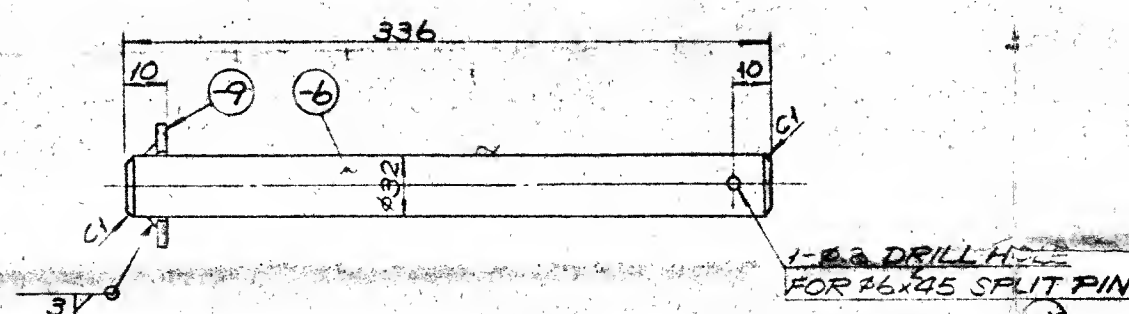
A S M E
FABRICATION



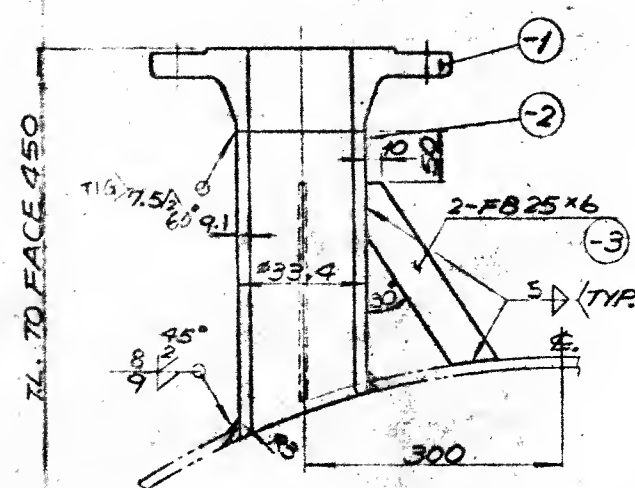
(-8) HINGE DETAIL



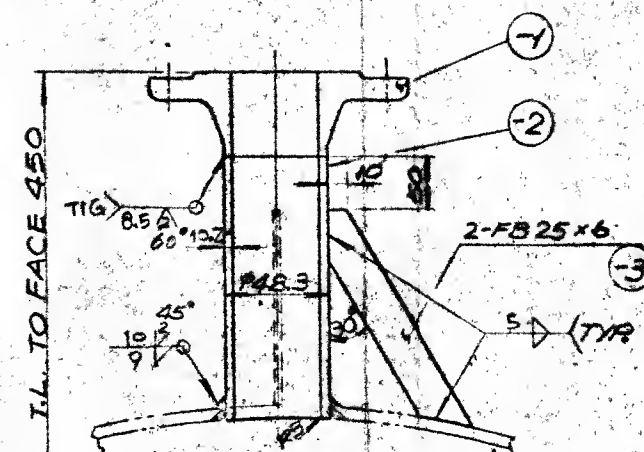
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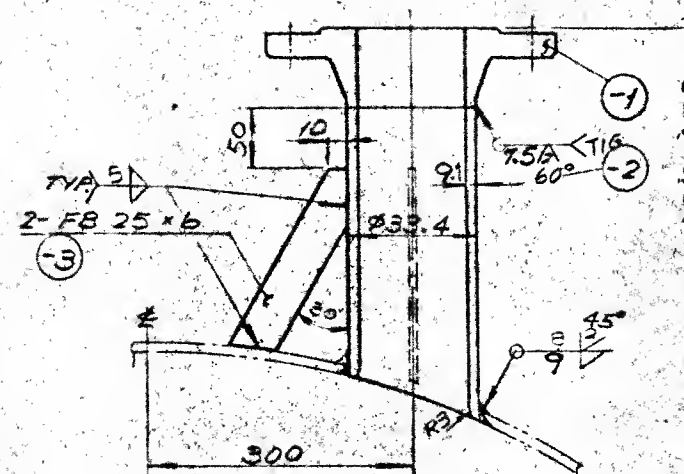
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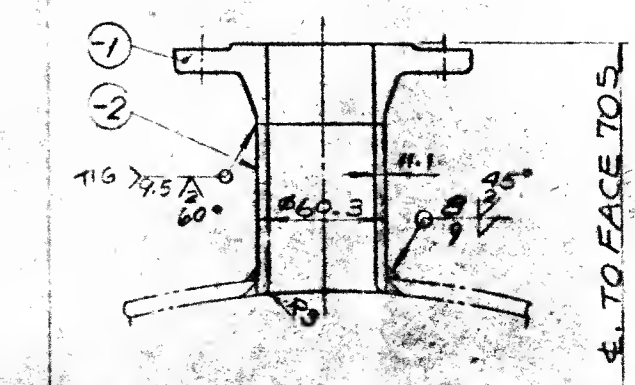
NS 10 AIR INLET




 VENT

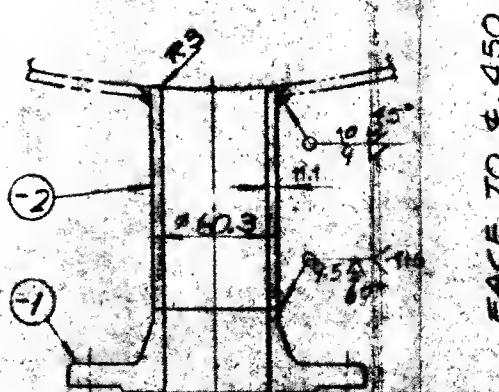


①② SAFETY VALVE

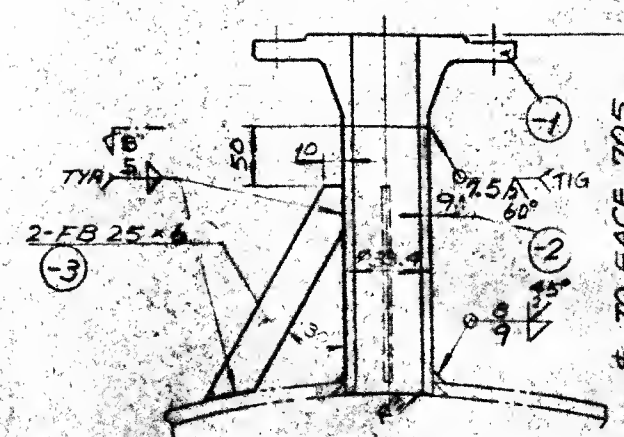


(13) (14) (15) (16)
 (M) (V2) (M2) (M2)
 (2) (2) (2) (2)

LIQUID INLET & OUTLET
 LEVEL SWITCH H & L



2017 DRAIN



PRESS. INDICAT.
LEVEL GAUGE

SECTION "B-E"

REVIEWED C.C.

REVIEWED BY A 1

PRODUCTION ORDER NO.

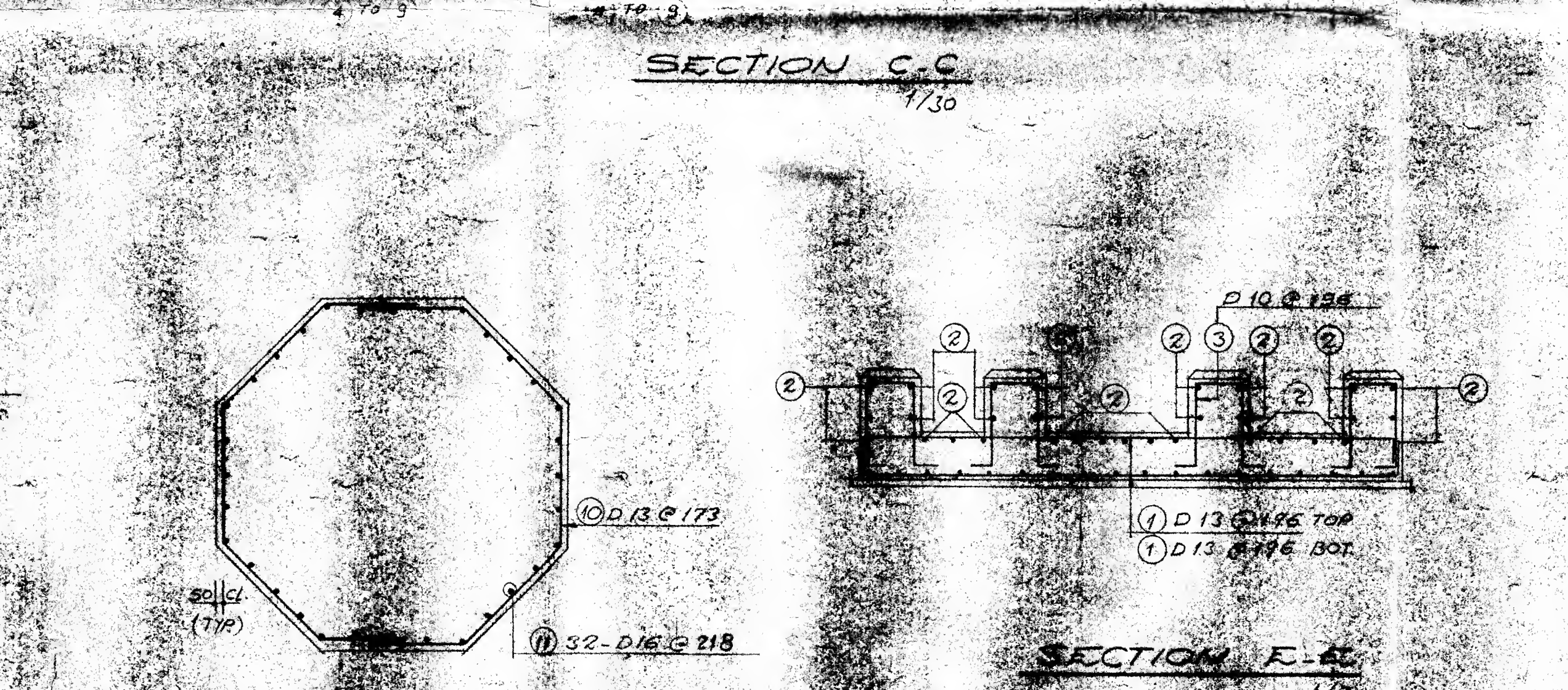
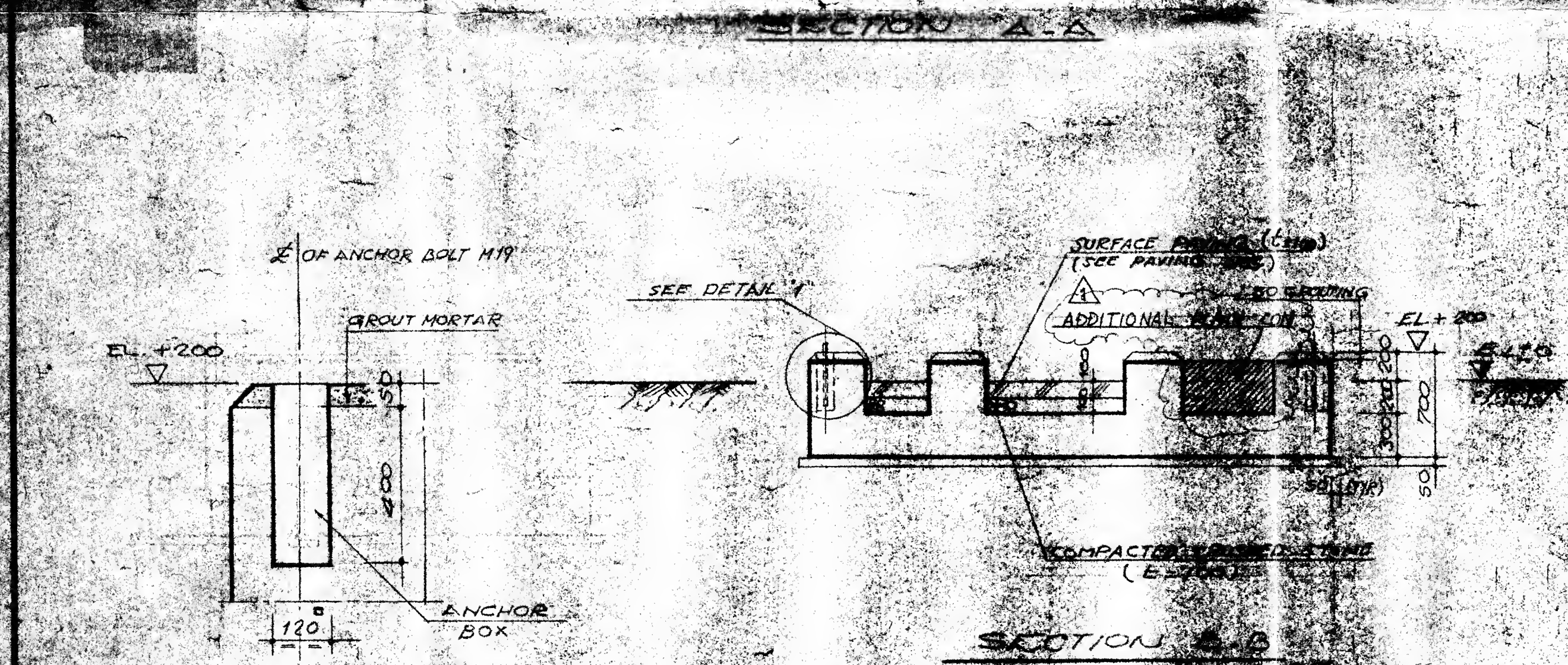
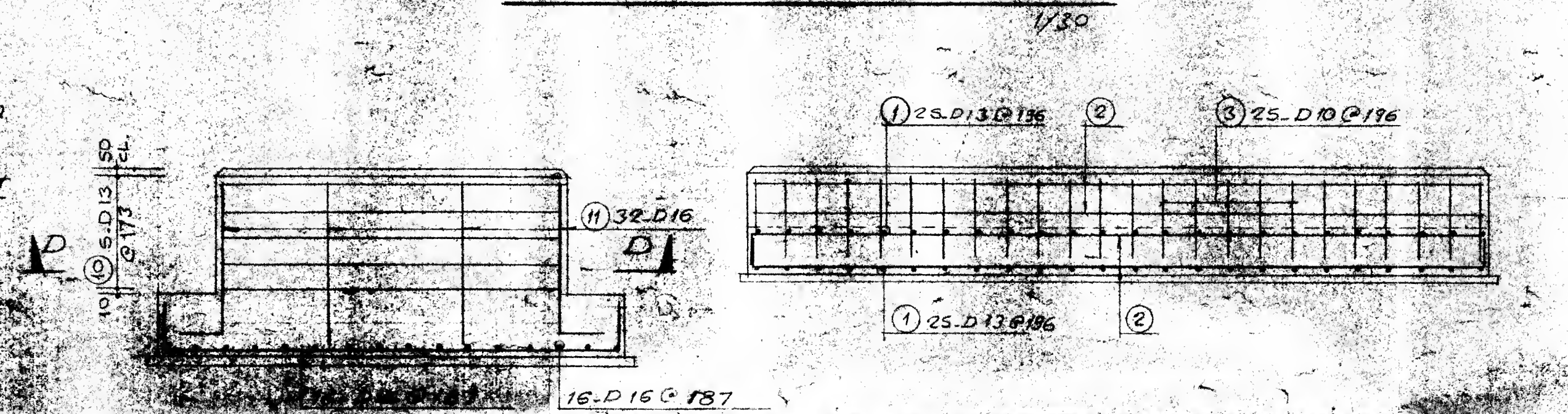
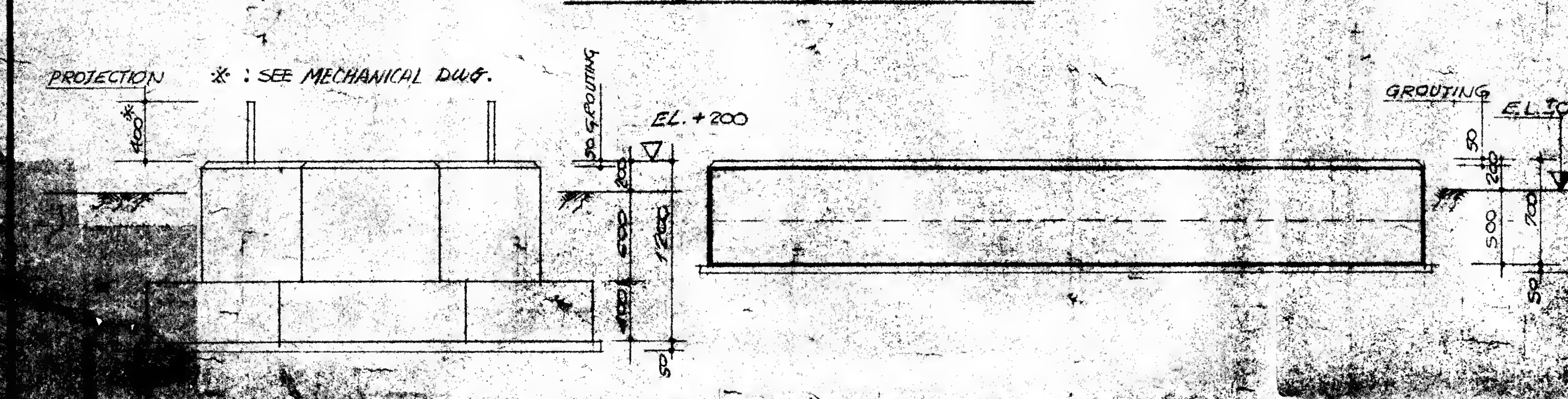
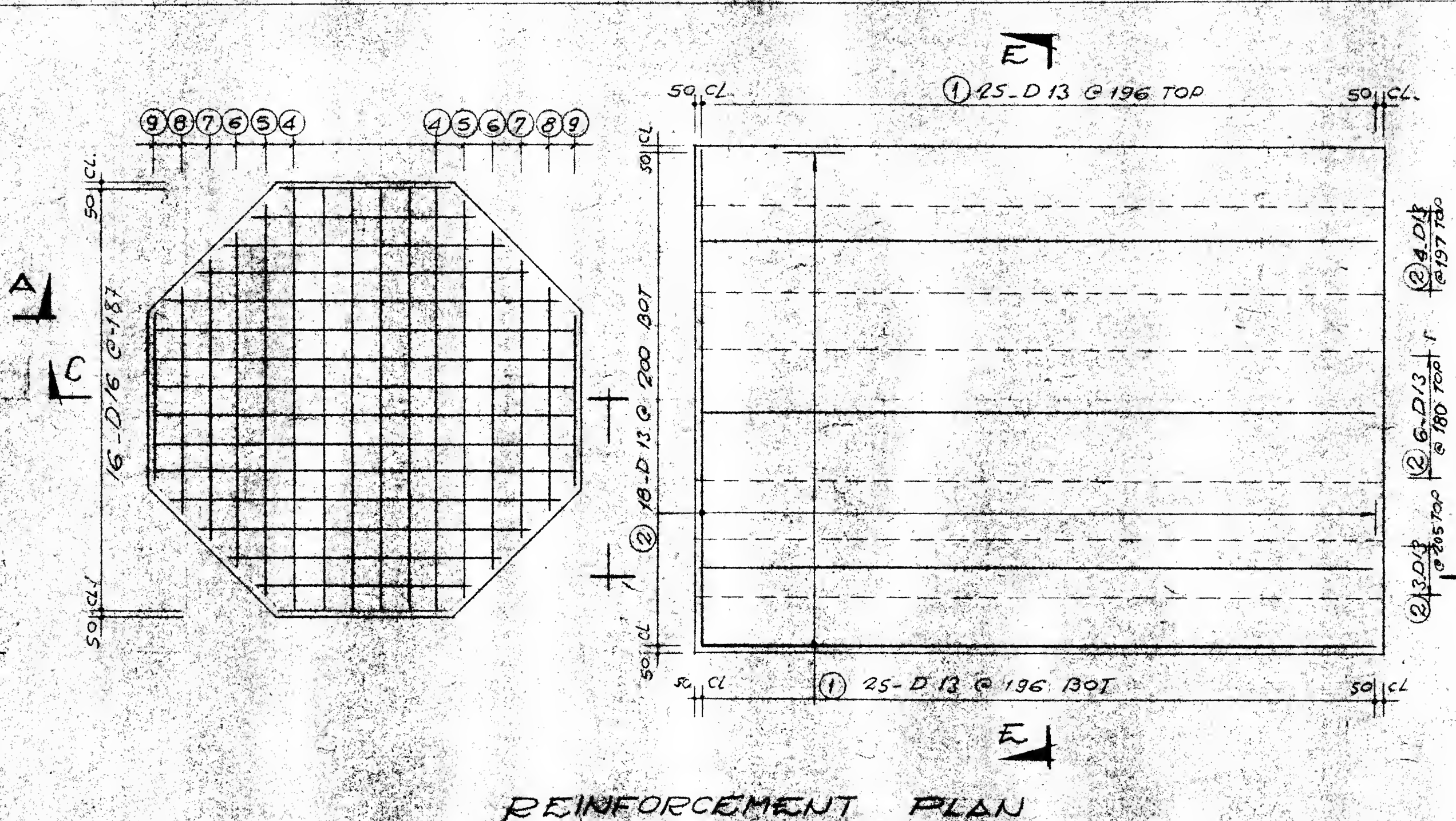
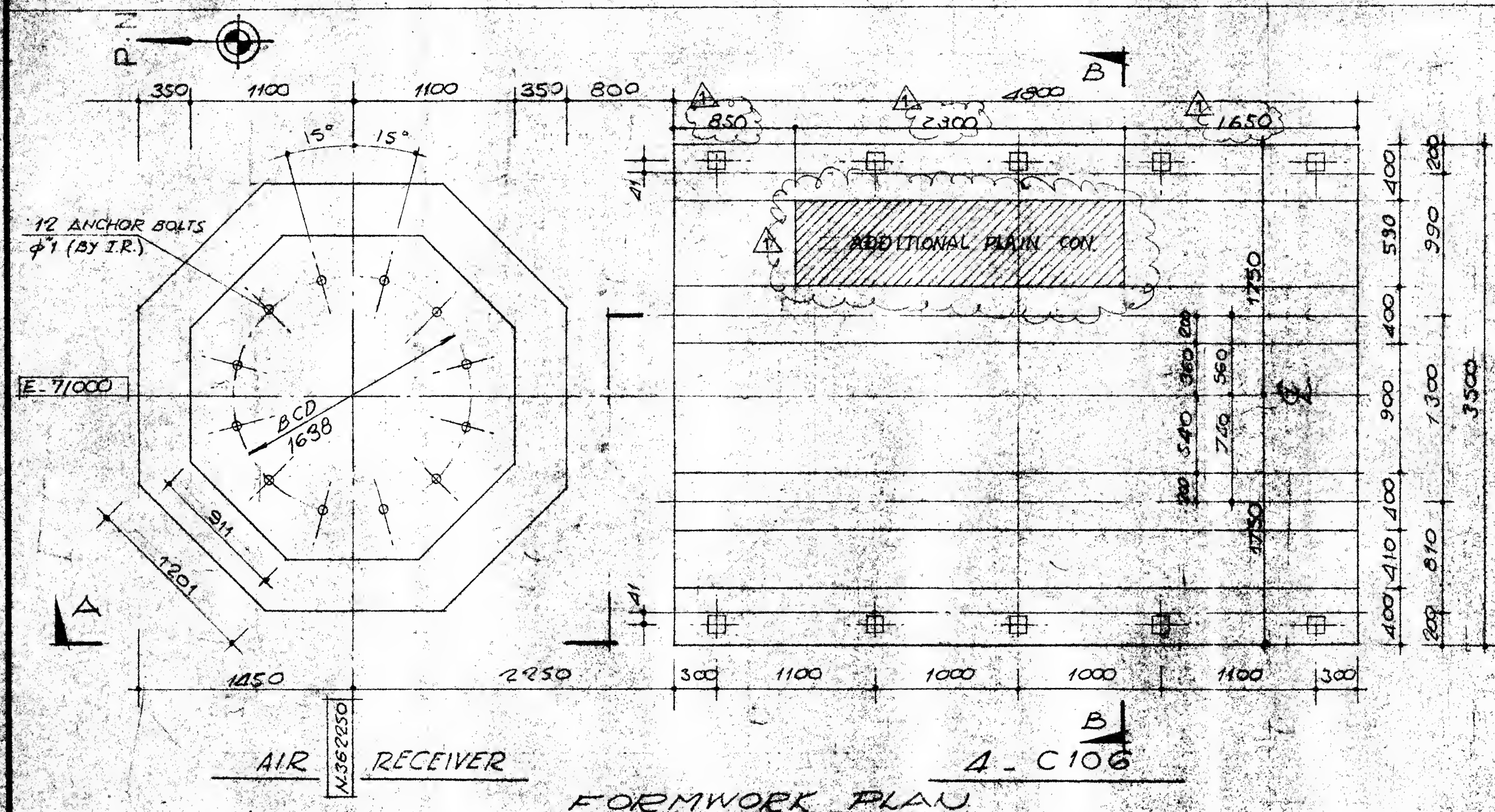
1. WELDING PROCEDURE QUALIFICATION TEST & WELDER'S PERFORMANCE QUALIFICATION TEST SHALL BE IN ACCORDANCE WITH ASME SEC VIII DIV 1 & IX.
2. BOLT HOLES OF ALL FLANGES SHALL BE STRADDLED THE CENTER LINE OF VESSEL.
3. NOZZLE NECK TO BE RADIOGRAPHED FULLY X-RAYED SECTIONS OF LONG. SEAMS.
4. LENGTH OF STUD BOLT DOES NOT INCLUDE THE HEIGHT OF THE POINTS.

-3	GUSSET R	A36	2	FB 25x6	
-2	NECK	A106-B	1	1" SCH. XXSg. - 149.76	
-1	FLANGE	A105	1	1" ANSI 150 WN. RF	SCH. XX-SL B-BR
19	PRESS. INDICAT.		1	SET	
18	LEVEL GAUGE		2	SET	
-2	NECK	A106-B	1	2" SCH. W-94-126	
-1	FLANGE	A105	1	2" ANSI 150 WN. RF	SCH. XX-SL B-BR
17	DRAIN		1	SET	
-2	NECK	A106-B	1	2" SCH. W-94-139.12	
-1	FLANGE	A105	1	2" ANSI 150 WN. RF	SCH. XX-SL B-BR
16	LEVEL SWITCH L.		2	SET	
15	LEVEL SWITCH H.		2	SET	
14	LIQUID OUTLET		1	SET	
13	LIQUID INLET		1	SET	
-3	GUSSET R	A36	2	FB 25x6	
-2	NECK	A106-B	1	1" SCH. XXSg. - 149.76	
-1	FLANGE	A105	1	1" ANSI 150 WN. RF	SCH. XX-SL B-BR
12	VENT		1	SET	
-3	GUSSET R	A36	2	FB 25x6	
-2	NECK	A106-B	1	1" SCH. XXSg. - 149.76	
-1	FLANGE	A105	1	1" ANSI 150 WN. RF	SCH. XX-SL B-BR
11	SAFETY VALVE		1	SET	
-3	GUSSET R	A36	2	FB 25x6	
-2	NECK	A106-B	1	1" SCH. XXSg. - 149.76	
-1	FLANGE	A105	1	1" ANSI 150 WN. RF	SCH. XX-SL B-BR
10	AIR INLET		1	SET	
-13	RAD	A516-55	1	2.9" x 750	
-12	PLUG	A36	1	PT 1/4"	
-11	HANDLE	A36	1	R.B-16	
-10	SPLIT PIN	A36	1	0.8-145	
-9	WASHER	A233-C	4	1.5" x 0.64" x 0.34	
-8	COVER HINGE	A233-C	2	R.19	
-7	FLANGE HINGE	A233-C	2	R.19	
-6	HINGE SHAFT	A36	1	R32-4336	
-5	STUD BOLT & NUT	A193-B7 A193-SL	16	1/8" - 7UNC x 155	SEE NOTE A
-4	GASKET	ASBESTOS	1	1.5" x 0.635" x 0.1572	
-3	BLIND FLANGE	A105	1	1.5" ANSI 150 SL RF	
-2	NECK	A516-55	1	R13 x 210.5K139.5	
-1	FLANGE	A105	1	1.8" ANSI 150 WN. RF	SCH. XX-SL B-BR
9	MANHOLE		1	SET	

NO.	DESCRIPTION	MAT'L	Q'TY	SIZE	REMARKS
MATERIAL LIST					
△					
△					
△					
△					
④	ISSUED FOR APPROVAL	\$1.7	2000	1000	1000
NO.	DESCRIPTION	DATE	PR'D	CHK'D	APP'D

REVISIONS	
CUSTOMER	DAELIM ENGINEERING CO., LTD
TITLE OF PROJECT	GULF OF SUEZ GAS PROJECT RAS SHUKEIR, EGYPT

KHIC		KOREA HEAVY INDUSTRIES & CONSTRUCTION CO., LTD.	
APPROVED	<i>P.K. Lee</i> 11.7.16	ITEM NO.	3 - V14
CHECKED	<i>Y.K. Kim</i> 11.7.15	NOZZLE DETAIL FOR POTABLE WATER SURGE DRUM	
DESIGNED	<i>THH</i> 11.7.15		
DRAWN	<i>g.p. Kim</i> 11.7.15		
BY	DATE		
SCALE	DWG. NO.	SHEET NO.	REV.
1:1	GD-21-101-042-0	2/2	△



REFERENCE DRAWINGS		
NAME OF DRAWINGS	SHEET No.	REV.
FOUND. LOCATION PLAN	GOS-AC-1400-53.011	
CONCRETE SPECS.	GOS-AC-20.006	
CONCRETE ACC.	GOS-AC-20.010	
SHIM & GROUTING	GOS-AC-20.007	

NOTE:
ALL DIMENSIONS ARE IN M.M.



NOTES:
A... MARK OF REINFORCEMENT.
B... DIAMETER OF REINFORCEMENT.
C... BAR NO.
D... STRAIGHTENED LENGTH OF REINFORCEMENT.
E... NUMBER OF REINFORCEMENT PER ELEMENT.
F... NUMBER OF ELEMENT.
G... TOTAL NUMBER OF REINFORCEMENT.
H... FIGURE.

LIST OF MATERIALS			
DESCRIPTION	UNIT	QUANTITY	REMARKS
REINFORCED CONC.	M ³	13.51	
LEVELLING CONC.	M ³	25.09	
FORMWORK	M ²	28.76	
EXCAVATION	M ³	17.58	
BACK FILLING	M ³	4.51	
BAR D-10	KG.	97.44	
BAR D-13	KG.	476.61	
BAR D-16	KG.	206.55	



BAR BENDING SCHEDULE									
ITEM	A	B	C	D	E	F	G	H	
1	13	196	3800	50	1	50		3440	
2	13	5700	48	1	29			4150	
3	10	196	1740	100	1	100			
4									
5									
6									
7									
8									
9									
10	13	173		10	30				
11	13	218		32	32				

1401 EGPC

SELF OF SUEZ GAS PLANT PHASE

FOUNDATION DETAILS FOR

LOG & AIR RECEIVER (4X 10)

SCALE 1/20

Hitachi Zosen

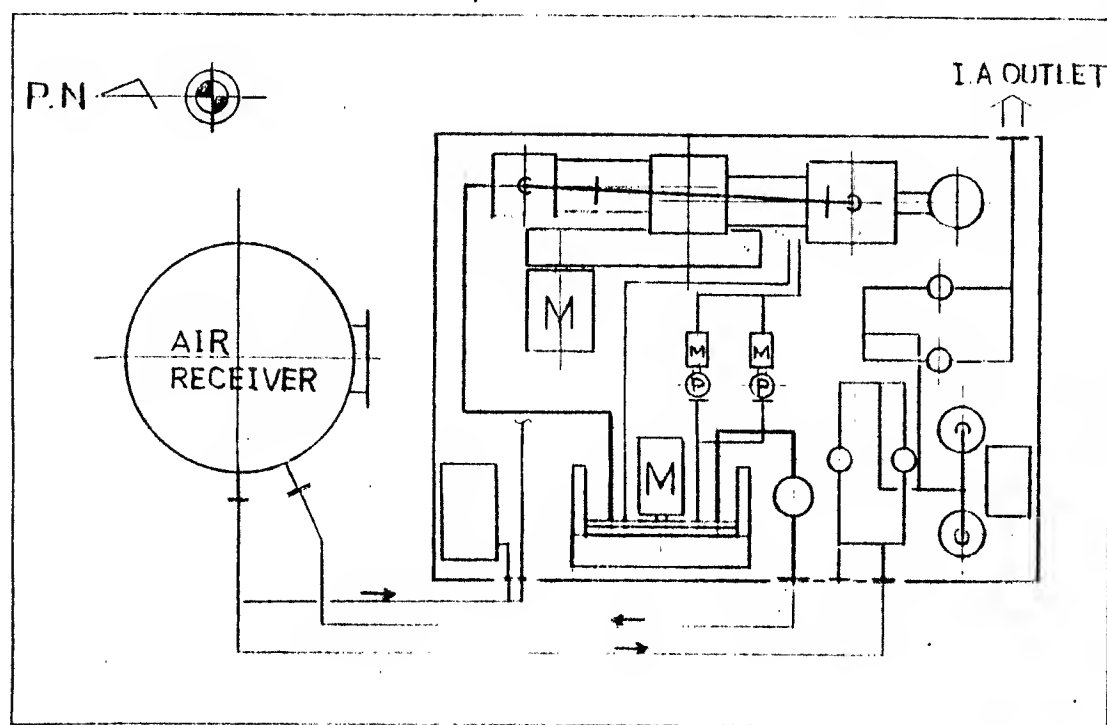
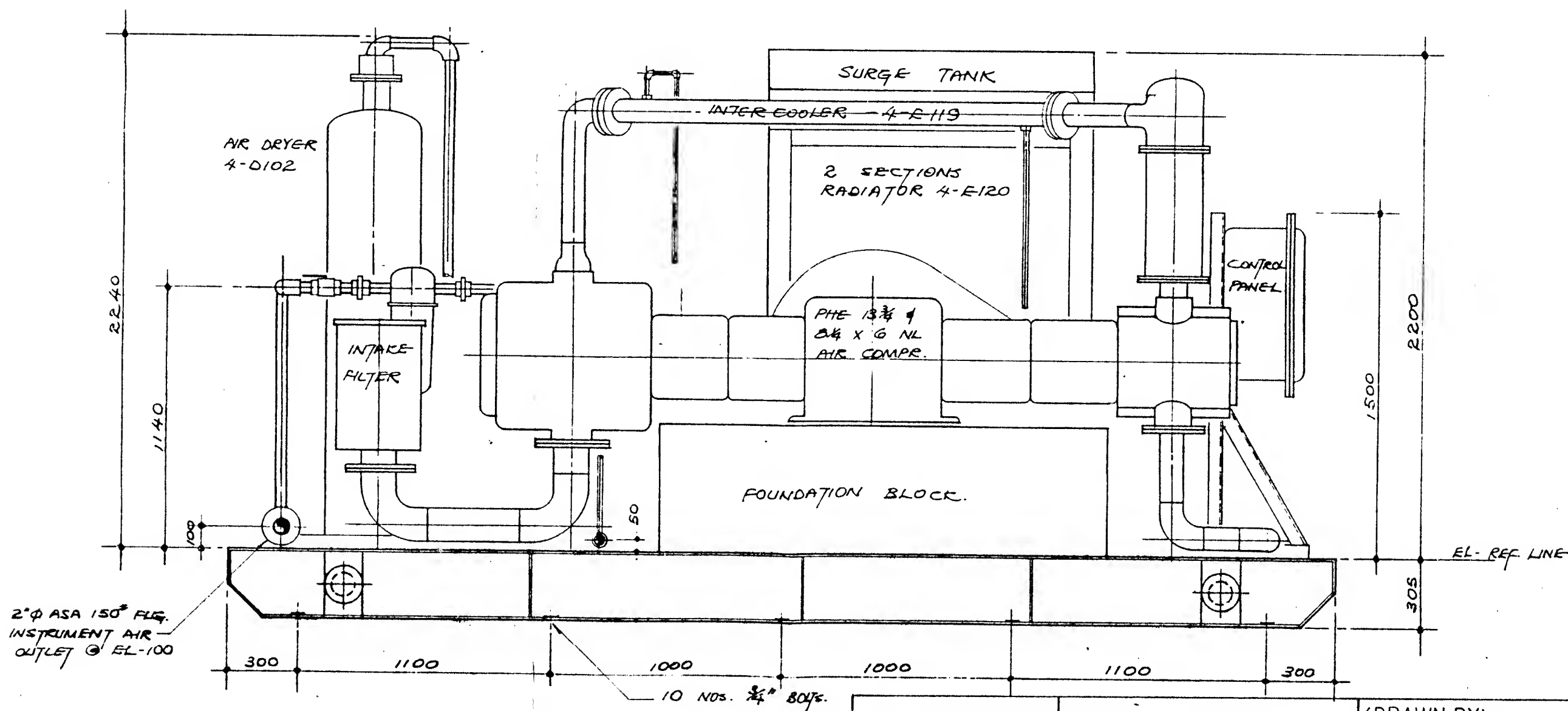
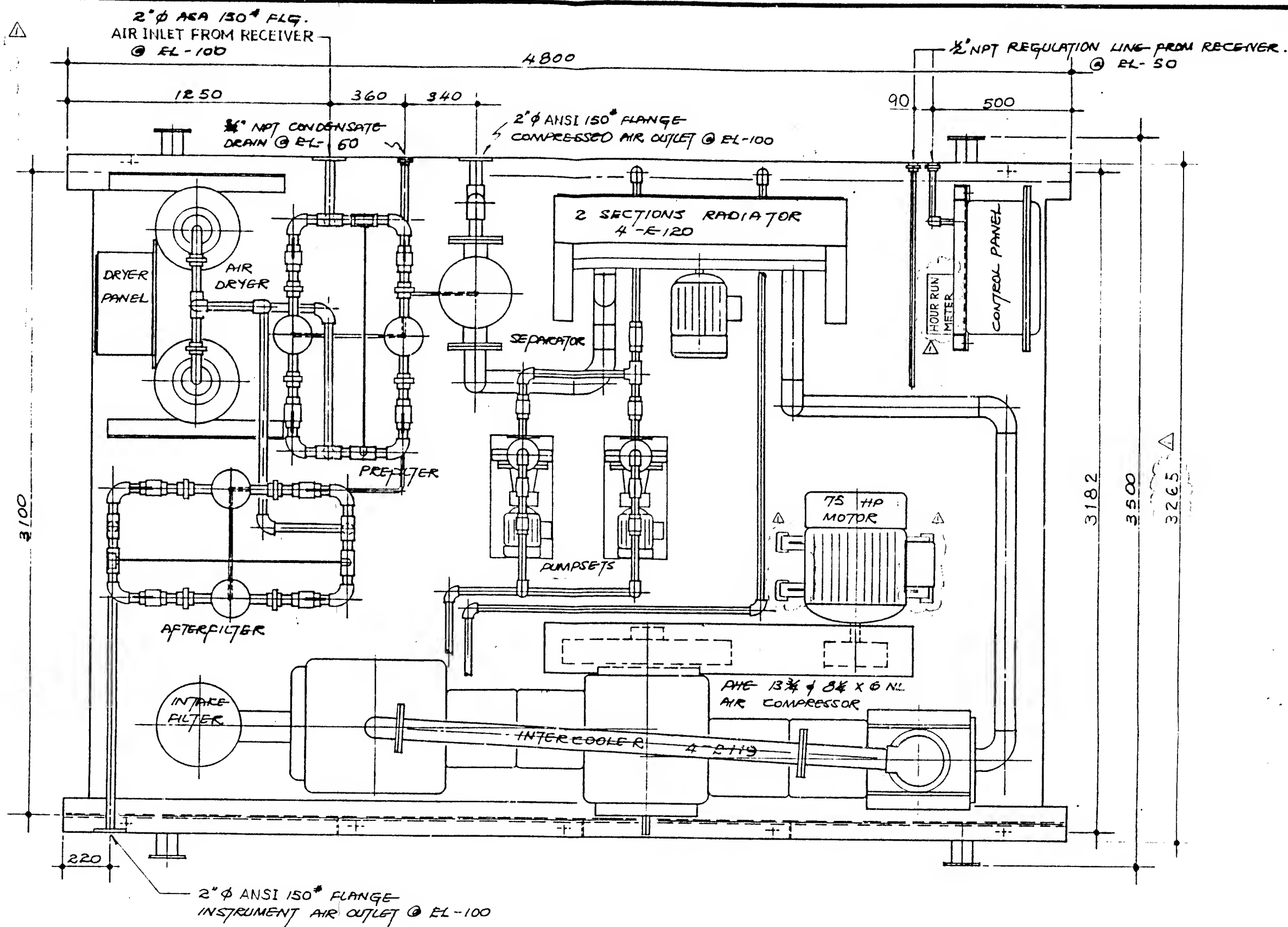
CIVIL ENGINEERING DEPARTMENT

OSAKA, JAPAN

DATE APR. 19/85

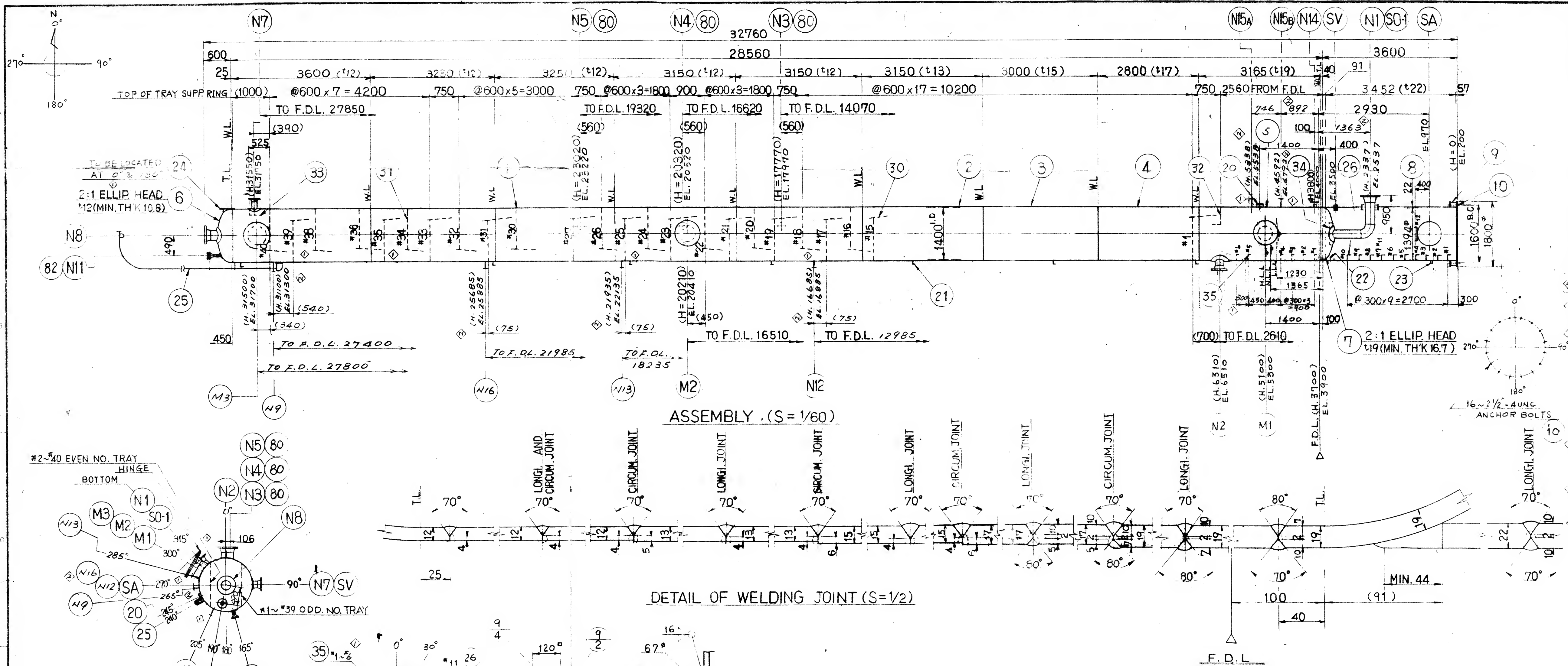
2485377

WEIGHT (kg)	
COMPRESSOR	2868
MOTOR	470
AFTERCOOLER	590
CONTROL PANEL	91
DRYER UNIT	995
PUMP 2sets	110
PRE &	
AFTERFILTER	24
SEPARATOR	68
PIPING	160
SKID	4800
OTHERS	136
TOTAL	10312



REMARKS
Rev.1 Issued for Construction

L.NO. 06291401		OWNER	EGPC		(DRAWN BY) (CHECKED BY) <i>R. Yanagihara</i> <i>K. Kato</i> <i>H. W.</i>
GOS-II 4-X105		ASSEMBLY DRAWING			
CLASS UI, UNIT		SPEC NO. UI 40-001			
DRWG NO. 3245252					
A	6-12-85	SUBMISSION FOR APPROVAL			
REVISION	DATE	DESCRIPTION			APPROVED
DESIGNED	DRAWN	CHECKED	EPS. DEPT. APPR		IR EQUIPT. REF
INGERSOLL-RAND 42 C106 Ingersoll-Rand South East Asia (Pte) Ltd 42, Benoi Road, Jurong Industrial Estate, Singapore 2262. Tel: 654311 Mail: GPO Box 2062, Telex: IRSPORE 21781					
GENERAL ARRANGEMENT OF ONE UNIT PHE-2 13 3/4 & 8 1/4 X 6 NL-2 AIR COMPRESSOR PACKAGE					
CUSTOMER		IR JAPAN (HITACHI-RAS SHUKHEIR)			
SCALE	DATE	DRAWING NO			REVISION
1: 20	4-12-85	E 2124			A
PROJECT NO: 1670					



NO.	DESCRIPTION	QTY
1	SHELL PLATE	2
2		3
3		5
4		7
5	SHELL PLATE	1
6	TOP HEAD PLATE	
7	BOTTOM HEAD PLATE	
8	SKIRT PLATE	
9	BASE BLOCK	
10	BASE PLATE	
11	UPPER PLATE	
12	GUSSET PLATE	
13	WASHER	
14	ANCHOR BOLT & HEAVY NUT	
15	TEMPLATE	
16	NAME PLATE	
17	INSULATION SUPPORT RING	
18	INSULATION SUPPORT RING	
19	FIRE PROOFING SUPP	
20	LIFTING LUG	
21	TOP DAVIT	
22	SKIRT INSIDE LADDER	
23	PLATFORM LADDER CLIP	
24	PIPE SUPPORT CLIP	
25	EARTH PIECE	
26	TRAY SUPPORT RING	
27	TRAY SUPPORT RING	
28	SEAL PAN SUPPORT	
29	ANTI-SPLASH BAFFLE	
30	VORTEX BREAKER	
31	INTERNAL LADDER	
32	INTERNAL PIPE	
33	INTERNAL PIPE	
34	COVER FLANGE	
35	COVER FLANGE	
36	STUD BOLT & HEAVY NUT	
37	GASKET	

FINAL



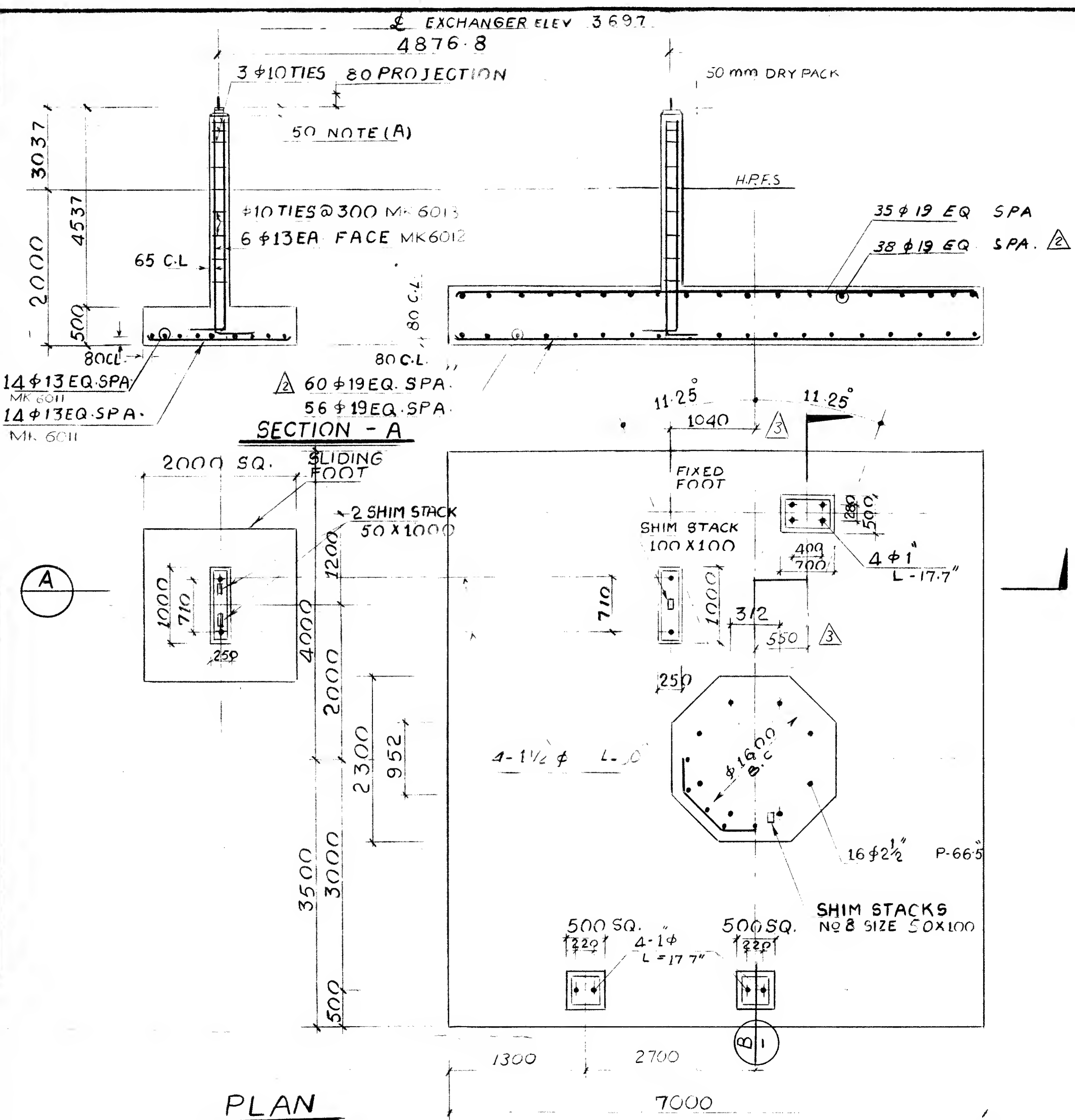
REGULATION	CODE	SPECIFICATION	FLUID NAME	OPERATING PRESSURE	DESIGN PRESSURE	DESIGN TEMPERATURE	RADIATION	JOINT TYPE	JOINT EFFICIENCY	CORROSION ALLOWANCE	POSTWELD HEAT TREATMENT	HYDRAULIC TEST PRESSURE	PNEUMATIC TEST PRESSURE	SHIPPING WEIGHT	OPERATING WEIGHT	INTERNAL WEIGHT	EXTERNAL WEIGHT	FULL WATER WEIGHT	VOLUME	INSULATION	FIRE PROOFING	NUMBER REQUIRED
ASME SECTION VIII DIV 1 1977 EDITION UP TO 1979 SUPPLEMENT				8.5 kg/cm ²	10.5 kg/cm ²	196 °C		DOUBLE WELDED BUTT JOINT	85/100	3.0	NO	15.8 kg/cm ²		20500 kg	45700 kg			88700 kg	44.7	YES (51 mm)	YES (SKIRT OUTSIDE)	1 SET

REV	DATE	DESCRIPTION
1	7/23/80	ISSUED FOR CONSTRUCTION
2	8/1/80	BY: [Signature]
3	8/1/80	DRAWN: [Signature]
4	8/1/80	CHECKED: [Signature]

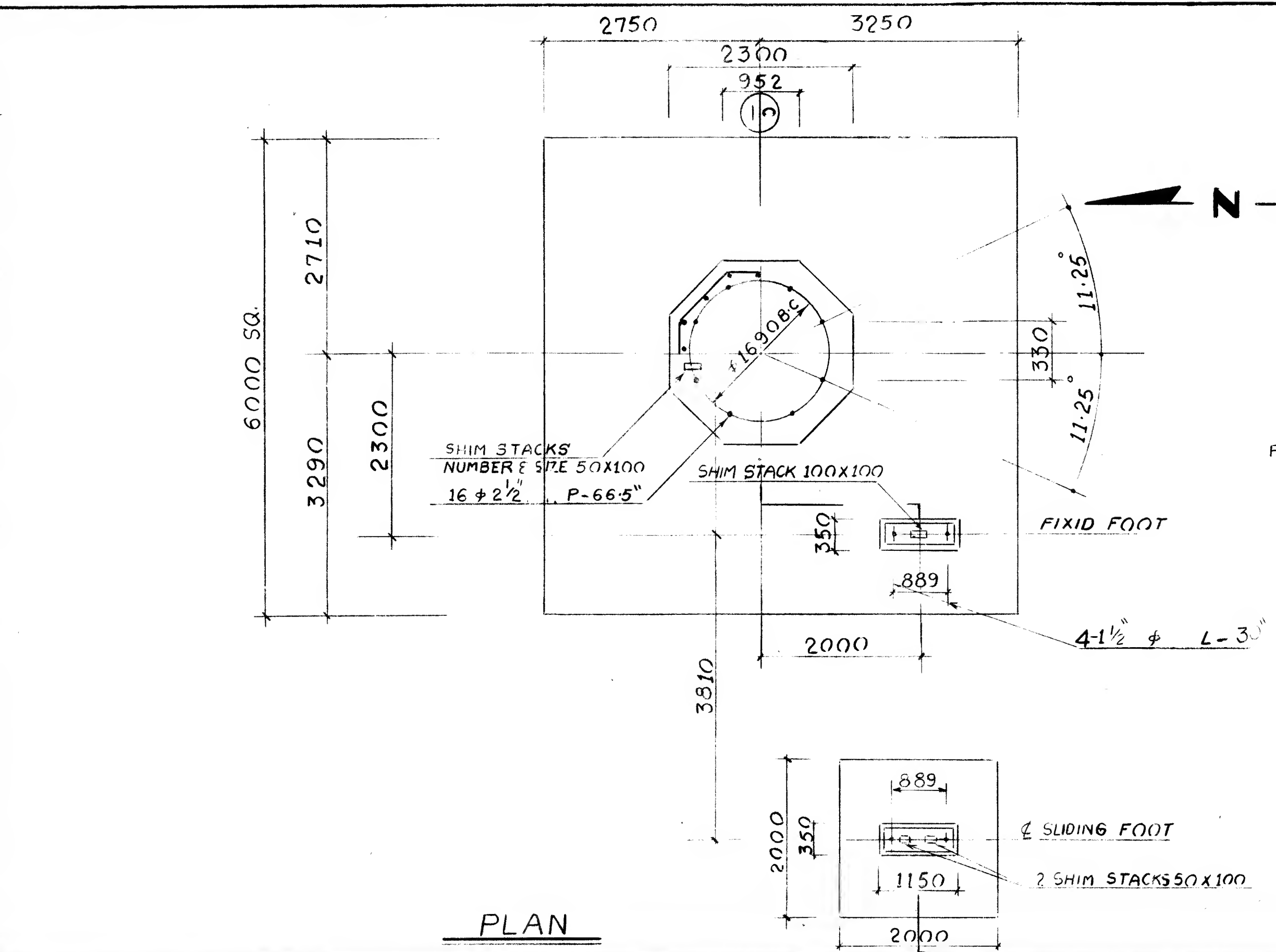
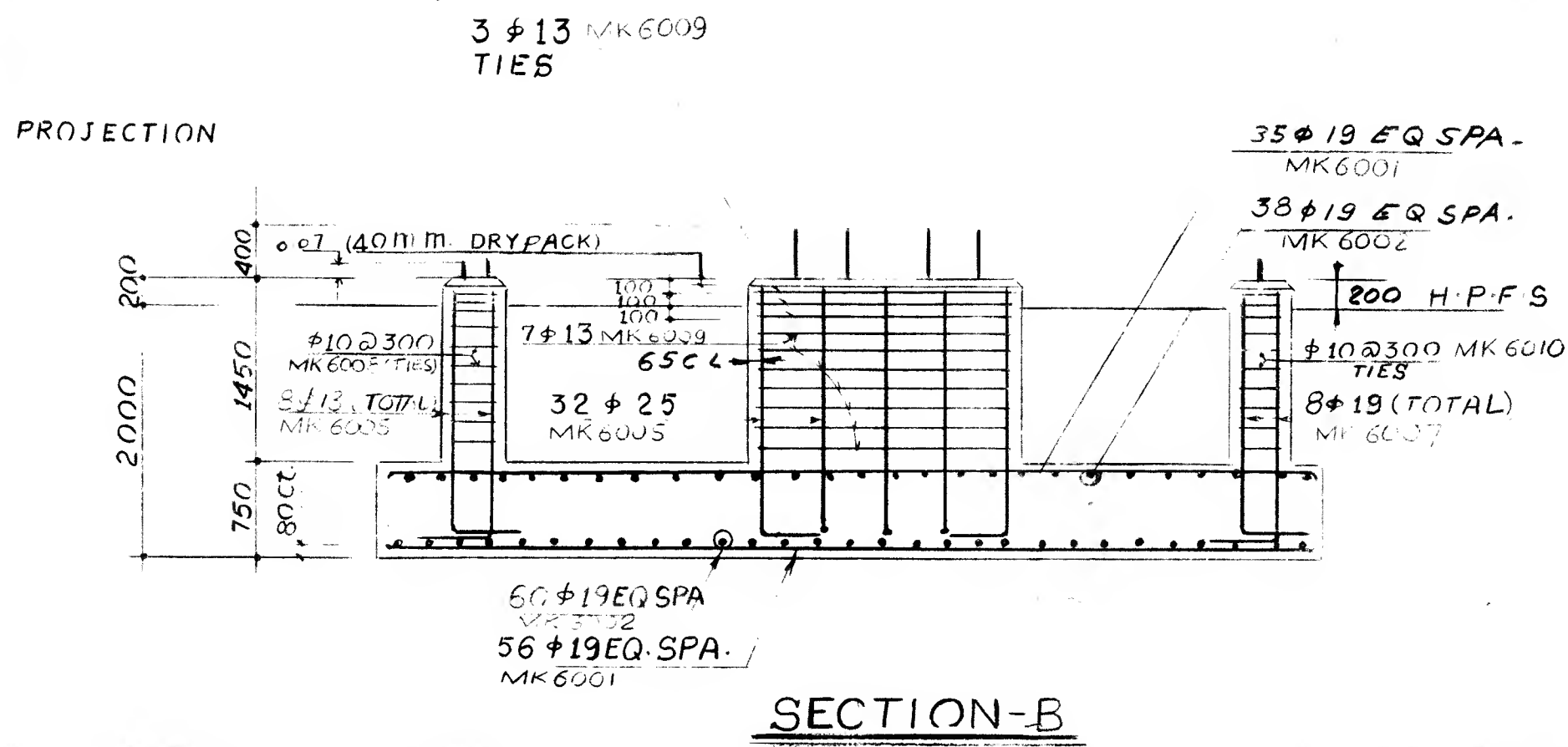
7/3 (S-1/12)													(C-1/5)		(26/35)		(S-1/10)	
MARK	SIZE	NO. PART REQD.	ST'D TYPE NO	SERVICE	RATING	MAT'L	THK	MAT'L	THK	REINFORCING R	PROJECT FROM C	REMARK						
M-1	20"	1	72	SEE DWG NO. B-8025435	MANHOLE	ANSI 150 W.N.R.F.	SA105	1/2	SA516Gr60	119	SA516Gr60	1000	W/HINGE					
SO-1	16"	1	60	AA-114-A-11A	SKIRT OPENING			1/4	SS41									
SA	24"	1	75	AS SHOWN	SKIRT ACCESS			1/4	SS41									
SV	4"	1	74	AS SHOWN	SKIRT VENT			40	STPG38									
M-2	20"	2	73	SEE DWG NO. B-8025804	MANHOLE	ANSI 150 W.N.R.F.	SA105	1/2	SA516Gr60	112	SA516Gr60	1000	W/HINGE					
N16	1/2"	1	68	SEE DWG NO. C-8025627	THERMOWELL	ANSI 50 L.N.R.F.		(1/4.3)				930						
N16	1"	2	71	AA-310-A-33B	LEVEL GAUGE	ANSI 50 L.N.R.F.		(XXS)				900						
N4	2"	1	70	AA-101-A-11A	UTILITY	ANSI 150 W.N.R.F.		1/2	SA106GrB	119	SA516Gr60	900						
N13	1/2"	1	68	SEE DWG NO. C-8025627	THERMOWELL	ANSI 50 L.N.R.F.		(1/4.3)				930						
N12	1/2"	1	68	SEE DWG NO. C-8025627	THERMOWELL	ANSI 50 L.N.R.F.		(1/4.3)				930						
N11	2"	1	69	AA-101-B-11A	VENT	ANSI 150 W.N.R.F.		1/2	SA106GrB	112	SA516Gr60	AS SHOWN	W/BLIND FLANGE					
N9	1/2"	1	76	SEE DWG NO. C-8025627	TEMP. INDIC.	ANSI 50 L.N.R.F.		(1/4.3)				900						
N8	10"	1	67	AA-101-A-11A	OVHD VAPOR	ANSI 150 W.N.R.F.		1/2	SA106GrB	112	SA516Gr60	AS SHOWN						
N7	6"	1	66	AA-101-A-11A	REFLUX	ANSI 150 W.N.R.F.		1/2				950						
N6	6"	1	65	AA-100-B-11A	OFF SPEC LPG	ANSI 150 W.N.R.F.		1/2					W/INT PIPE					
N5	8"	1	64	AA-100-B-11A	FEED	ANSI 150 W.N.R.F.		1/2				950	W/INT PIPE					
N4	8"	1	63		FEED			1/2					W/INT PIPE					
N3	8"	1	62	AA-100-B-11A	FEED			1/2					W/INT PIPE					
N2	8"	1	61	AA-101-A-11A	REBOILER VAPOR			1/2	SA106GrB	119		950						
N1	8"	1	60	AA-114-A-11A	REBOILER FEED	ANSI 150 W.N.R.F.	SA105	80	SA106GrB SA224NFB	119	SA516Gr60	AS SHOWN	W/VORTEX BREAKER					

NOZZLE SCHEDULE

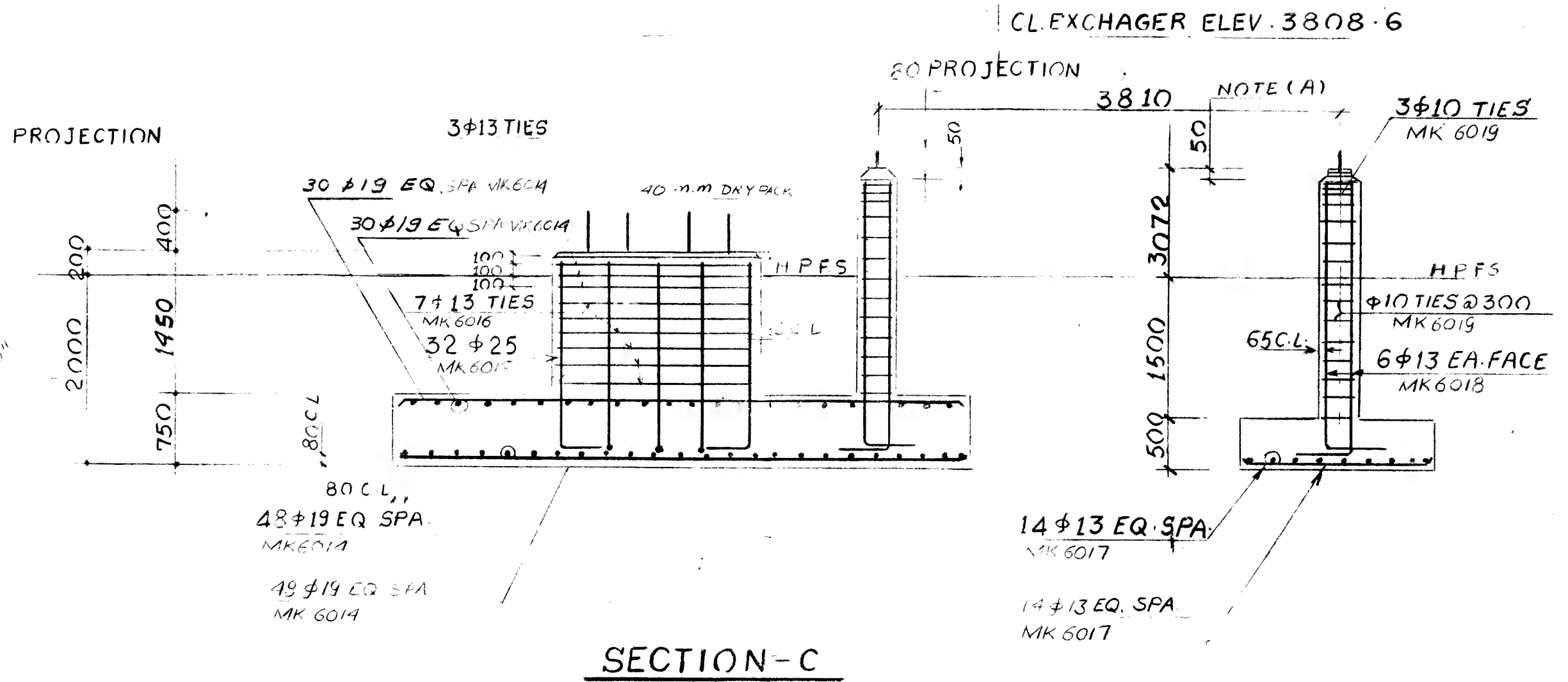
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FOUNDATION FOR 4-T2 & 4-E13



FOUNDATION FOR 4-T1 & 4-E10



NUMBER	REFERE
9211-100-300-2	CONCRETE
9211-100-300-6	CONCRETE ACCESS
9211-100-300-7	SHIM & GROUTING
9211-104-FE-11	FOUNDATION LOCAT PROCESS AR
C-8025410	4-T1 DEPROPAN
C-8025411	4-T2 DEBUTANIZE
	SOIL REPOF
9211-B-104 FD-60	BAR LIST

NOTES:-

- 1- ALL DIMENSIONS ARE IN MM
 - 2- LEVELS ARE RELATED TO HIGH POINT OF SURFACE (HPFS) = ELEV. (± 00)
 - 3- CONCRETE USED FOR FOOTING CLASS
 - 4- CONCRETE FOOTING TO BE UNDERLAID CLASS 10 CONCRETE BLINDING.
 - 5- FOR 4-E13 & 4-E10 BEARING PLATE SHALL BE 25 MM LARGER THAN THE APP. AND THICKNESS SHALL BE 10 MM.
 - 6- TEFLON SHEETS SHALL BE WITH A MINIMUM THICKNESS OF 2.5 MM, AND DIMENSIONS THAN APPARATUS BASE DIMENSIONS.
- NOTE: A 50 MM DIMENSION INCLUDES SHIMS, BE TEFLON SHEETS AND DRYPACK.

ESTIMATED MATERIAL	REVISI			
	1	2	3	4
CONCRETE CLASS A. M ³	85	+112	0	
BARS DIA # 10 TON	0.2	+0.1	0	
BARS DIA # 13 TON	0.2	+0.3	0	
BARS DIA # 19 TON	550	0	0	
BARS DIA # 25 TON	0.7	0	0	
2 1/2" P-66.5 ANCH BOLTS	32	0	0	
1 1/2" L-30 ANCH BOLTS	8	0	0	
100x100 MM SHIM STACKS	14	-12	0	
50x100 MM SHIM STACKS	4	+16	0	
1" L-17.7 ANCH BOLTS	-	+8	0	

3	6-17	REVISED AS SHOWN	NAD	A	1.S
2	3-18	REVISED AS SHOWN	NAD	A	S
1	1-20	ISSUED FOR CONSTRUCTION	NAD	A	1.S
0	1-20	ISSUED FOR APPROVAL	NAD	A	1.S

REV	DATE	DESCRIPTION	BY	CHECK	APPROVED
BY	M.S.	DATE 12-18-80			
DESIGNED	M.H.	DRAWN	N.H.	REVIEWED	A.S.
FOR E G P C					
AT RAS SHUKHEIR					

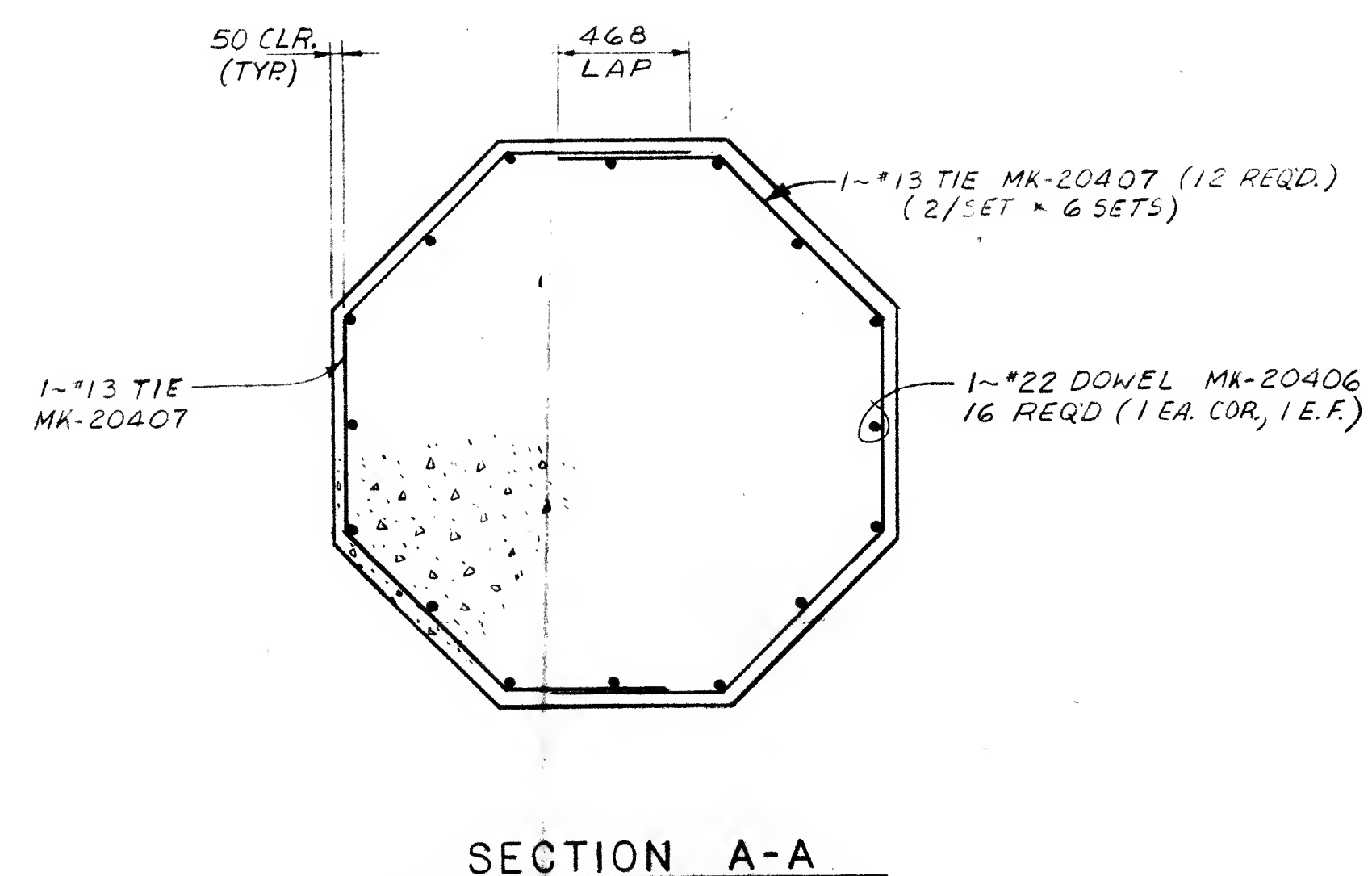
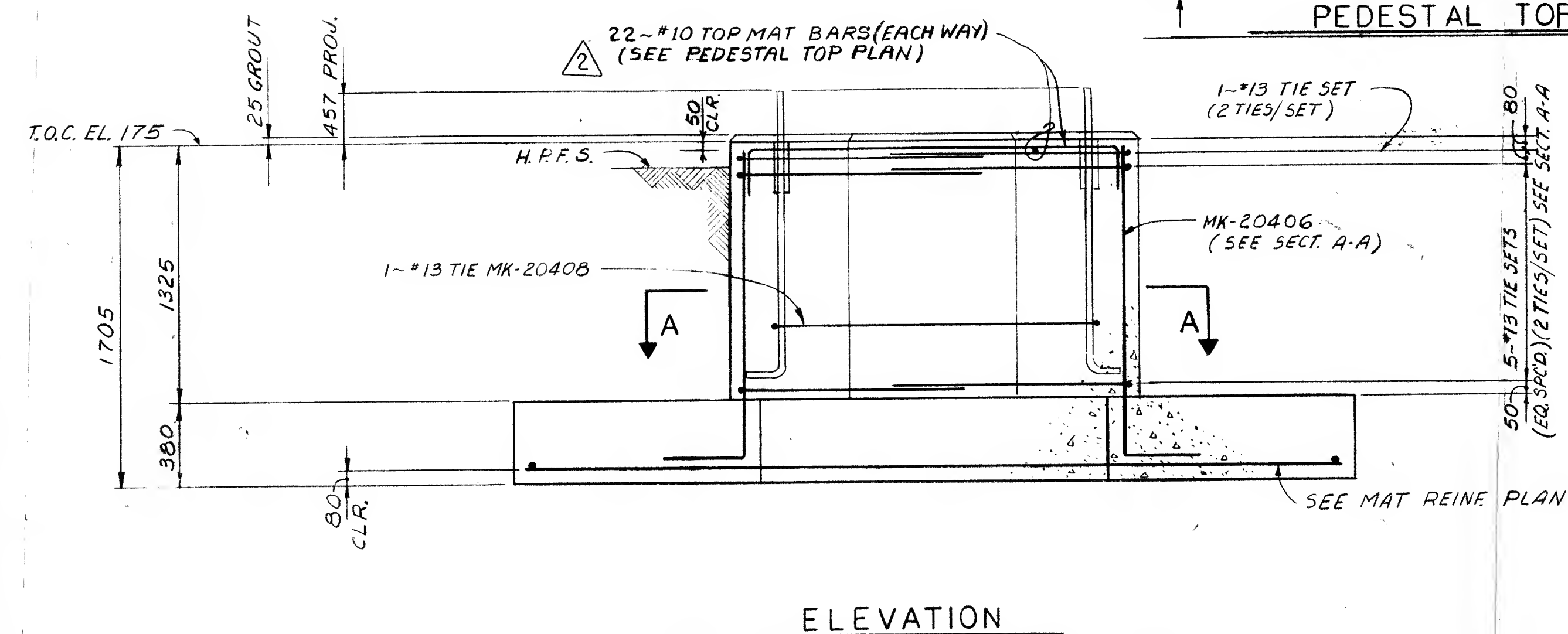
GULF OF SUEZ GAS PRO
MAIN PROCESS ARE
FOUNDATIONS FOR 4-T1
4-E10 AND 4-E13

الهندسة للصناعات البترولية والكيمياوية

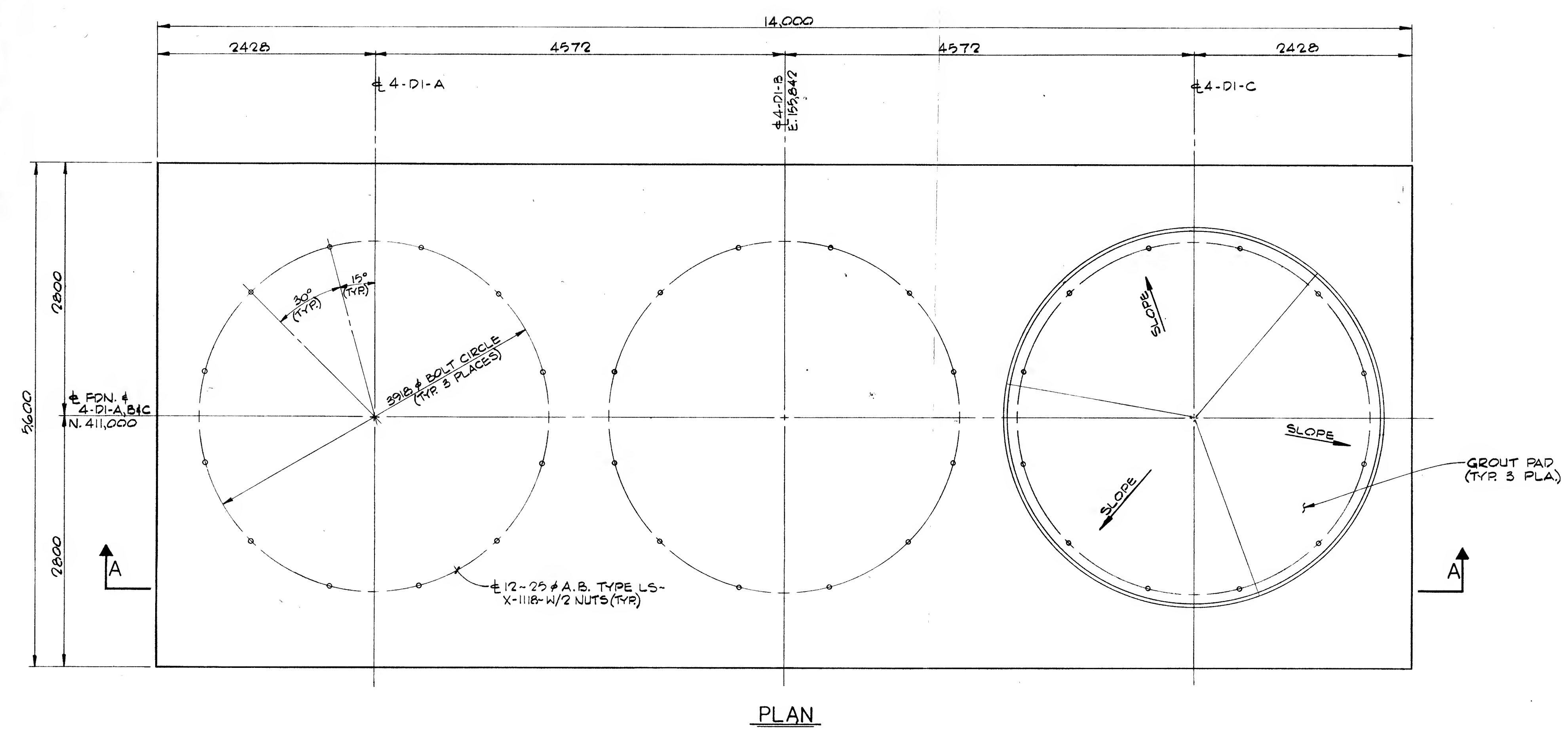
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ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

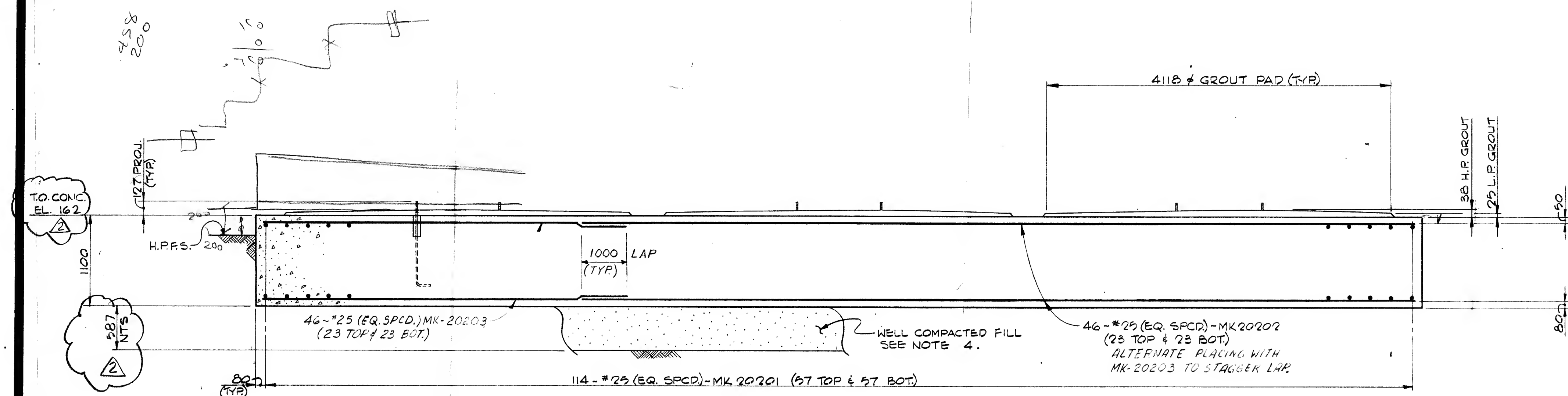
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DATE 10-13-1980
DRAWING NUMBER 9211-104-FD-6



ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES		
SCALE 1:20	DRAWING NUMBER	REVISION
DATE 6-1-81	9211-104-FD-204	2



PLAN



SECTION A-A

Handwritten calculations and notes:

- 12-9
- 18-74
- 23-4
- 2032
- 234
- 4582
- 15 288
- 4587
- 4587
- 1111
- 1043
- 68
- 50
- 38
- 88
- 288
- 458
- 365
- 1111
- 35833
- 254
- 725
- 280
- 35830
- 1158
- 1107
- 3508
- 365.8
- 4587
- 1065
- 53
- 650
- 14-5
- 580
- 254
- 725
- 280
- 35830

GENERAL NOTES:

1. FOR CONCRETE GENERAL NOTES SEE DRAWING 9211-104-FD-200
2. ALL DIMENSIONS ARE IN MILLIMETERS.
3. HIGH POINT FINISHED SURFACE (H.P.F.S.) = DATUM ELEV. 0.00 M. H.P.F.S. IS 19.51 METERS ABOVE MEAN SEA LEVEL.
4. FILL BELOW FOUNDATION TO BE WELL COMPACTED GRAVEL, COARSE SAND OR OTHER STABLE MATERIAL.
5. CONCRETE FOR FOUNDATION TO BE CLASS 'A'.
6. GROUT QUANTITY TO BE MEASURED IN FIELD.

ESTIMATED MATERIAL		REVISION			
		Δ	Δ	Δ	Δ
CONCRETE	(M³)	90.6			
BACKFILL	(M³)	47			
25 # ANCHOR BOLTS	(EA.)	36			
76 # x 754 LG. BOLT SLEEVES	EA.	36			
REBAR	(METRIC TONS)	5.8			

REFERENCE DRAWINGS

- 9211-104-FD-200 CONCRETE GENERAL NOTES
- 9211-104-FD-201 FOUNDATION LOCATION PLAN
- 8-9211-104-FD-220 REBAR SCHED. FOR DRIERS 4-DI-A,B & C FOUNDATION
- 9211-104-SD-207 ANCHOR BOLT DETAILS

APPROVED A.I.O.C. HOUSTON

2	9/30	REVISED PER VENDOR DRWG							
1	9/17	ISSUED FOR CONSTRUCTION							
41	9/16	APPROVED FROM A.I.O.C.	RNS	D.L.D.	E.F.				
40	9/16	ISSUED FOR APPROVAL	RNS	D.L.D.	E.F.				
REV	DATE	DESCRIPTION	BY	CHECKED	DESIGNED	APPROVED			

NOTICE: THIS DRAWING HAS NOT BEEN PUBLISHED. IT IS THE SOLE PROPERTY OF ENPPI. IT IS LOANED TO THE CLIENT FOR HIS CONFIDENTIAL USE ONLY. AND UPON THE COMPLETION OF THE PROJECT, IT IS TO BE RETURNED TO ENPPI. ANY REUSE OR REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF ENPPI IS STRICTLY PROHIBITED.

ISSUED FOR CONSTRUCTION: **WMS** DATE: 9/17/81

CUSTOMER APPROVAL: **WMS** DATE: 9/17/81

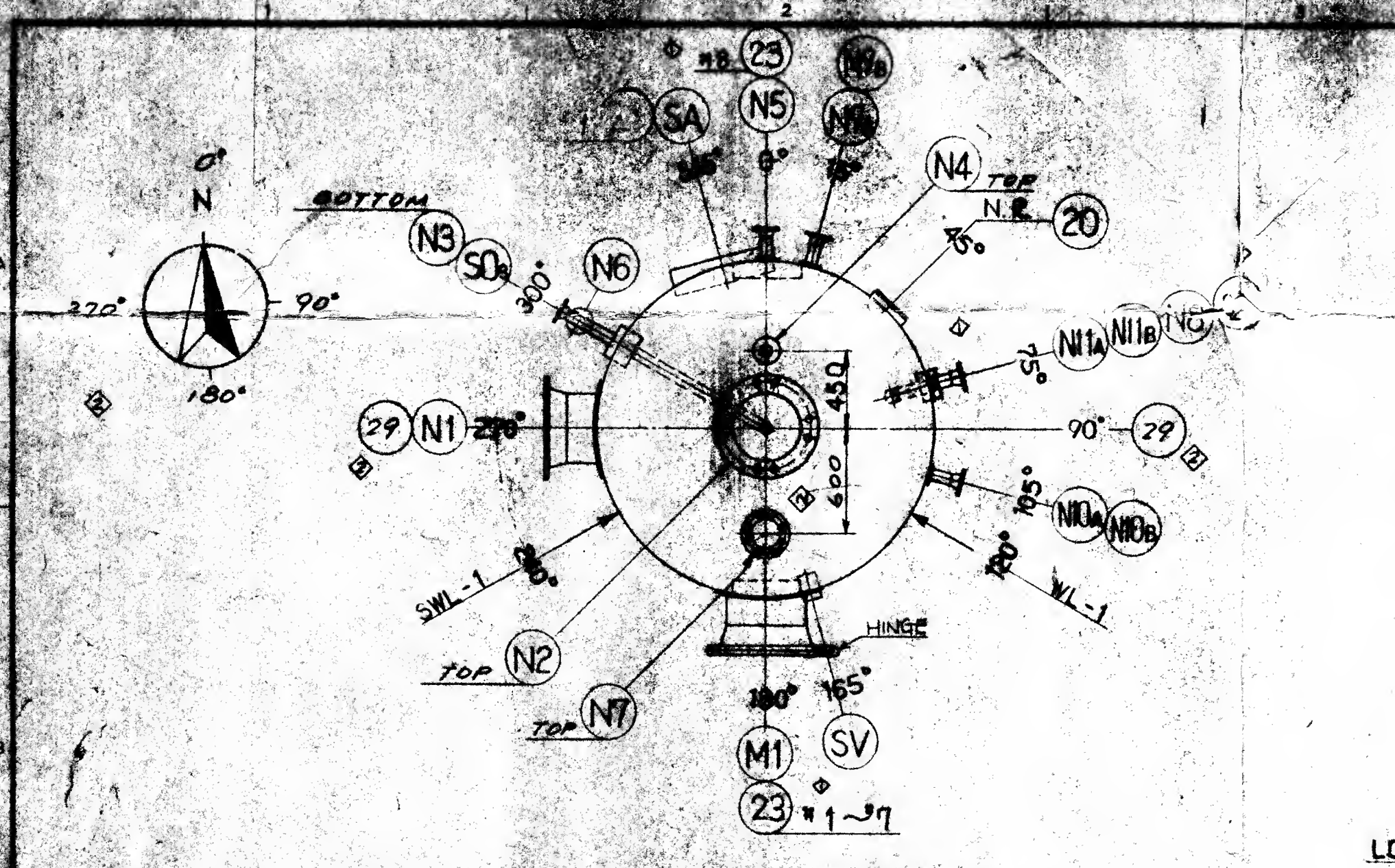
DESIGNED: **E.F.** DRAWN: **R. SUTTON** REVIEWED: **D.L.D.** APPROVED: **E.F.**

FOR EGPC AT RAS SHUKHEIR

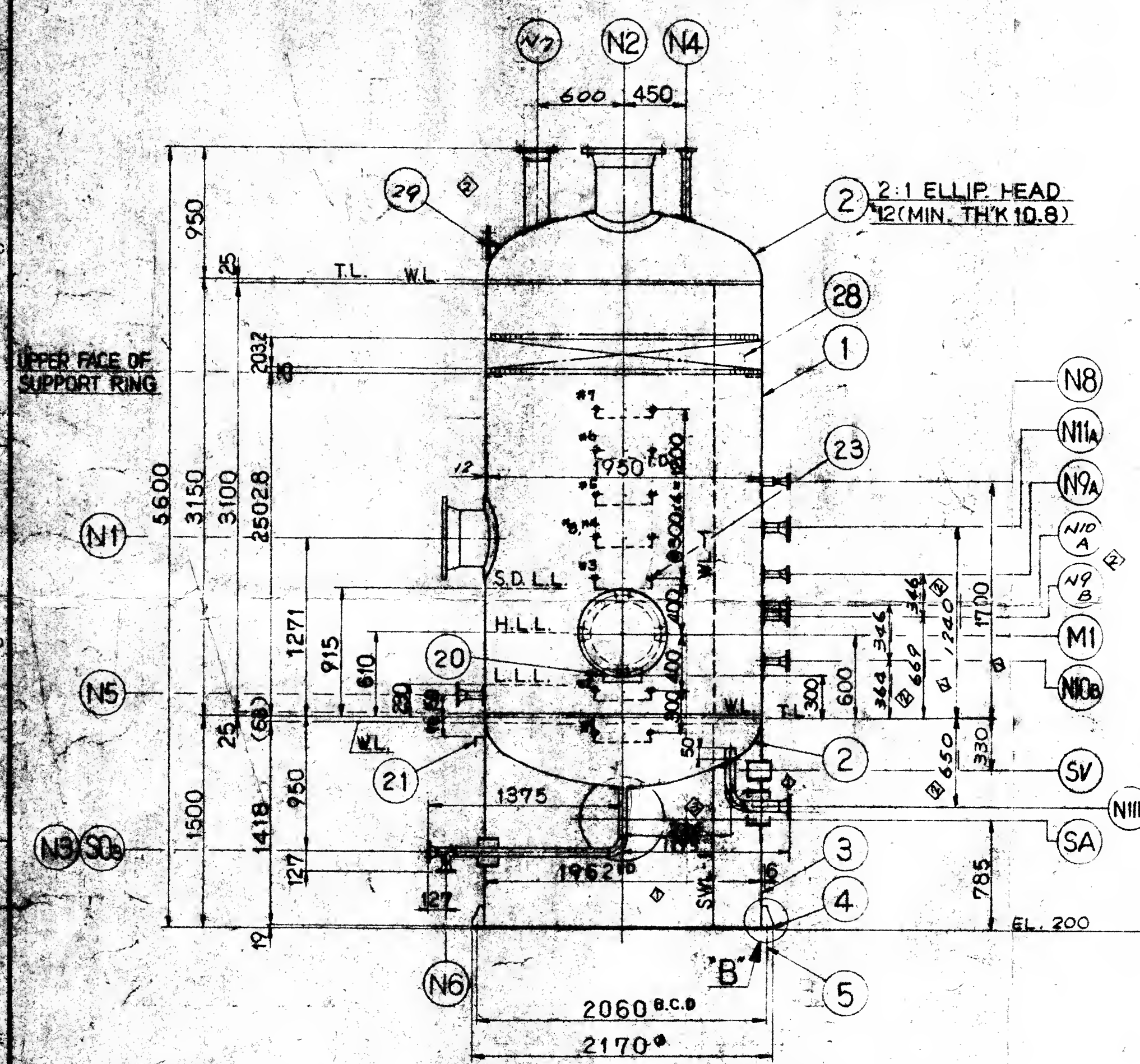
GULF OF SUEZ GAS PROJECT
GAS SWEETENING UNIT
AREA 3F & 3H STRUCTURAL
FDN. FOR DEHYDRATORS 4-DI A,B & C

الشركة الهندسية للبتروكيماويات والكيماويات
Enppi
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

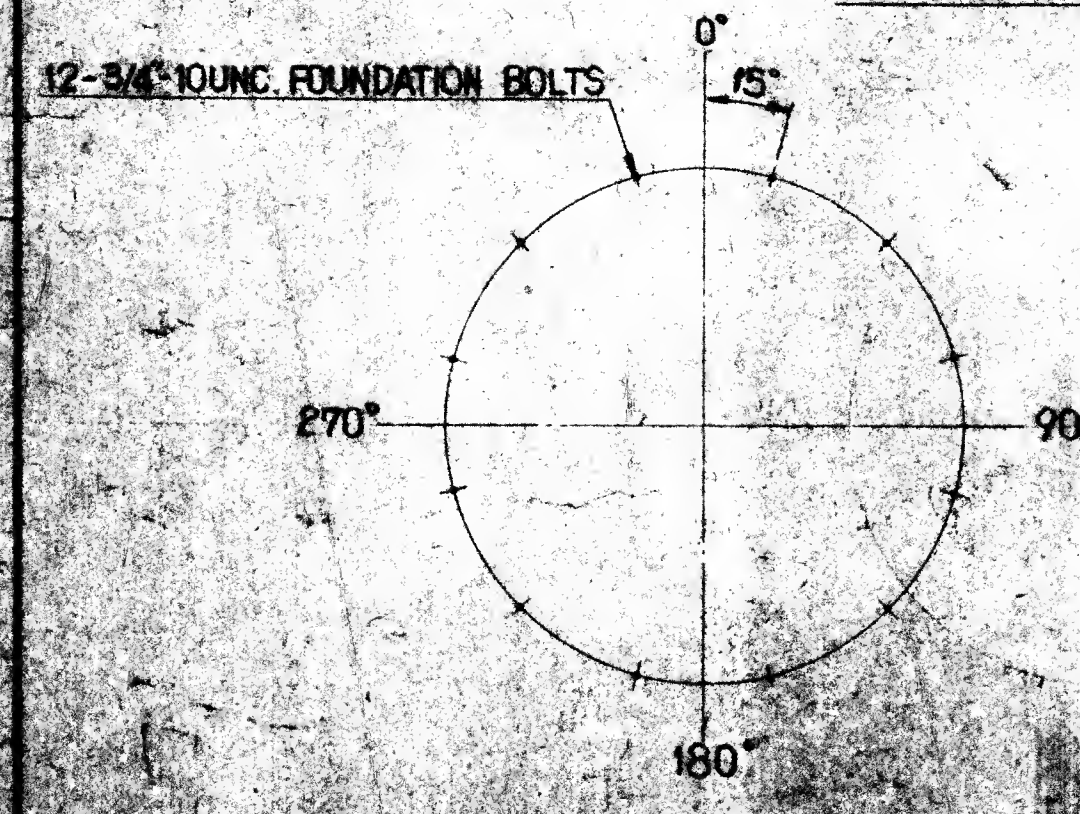
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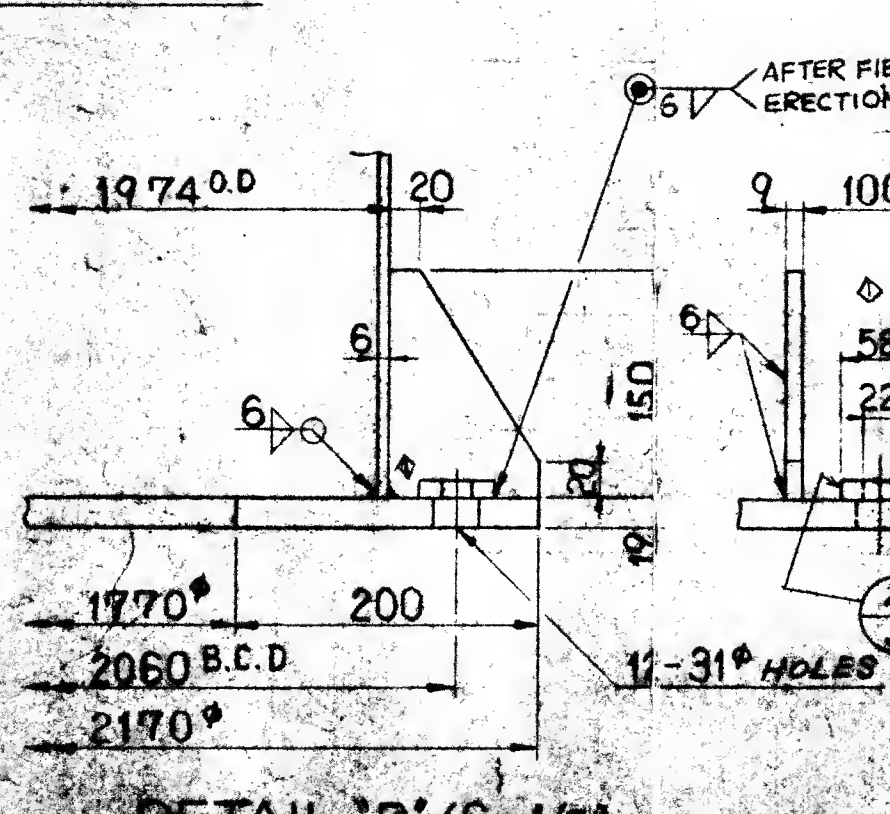
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ASSEMBLY (S = 1/30)



ANCHOR BOLT LOCATION (S = 1/30)



DETAIL 'B' (S = 1/5)

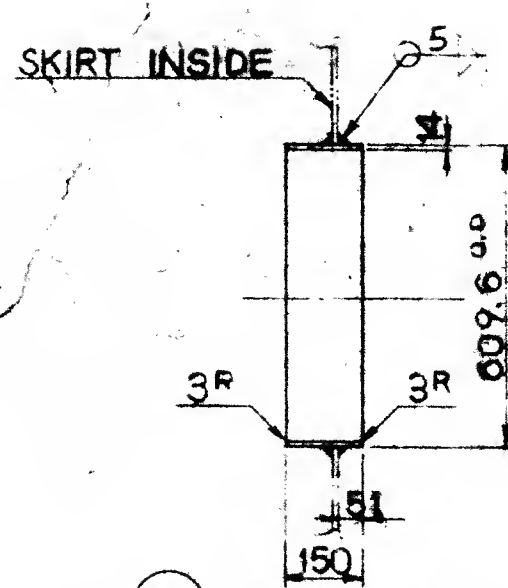
LONGI. JOINT

LONGI. JOINT

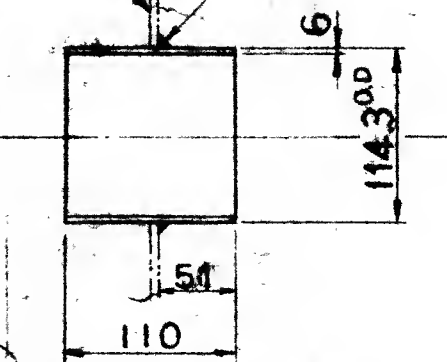
WELDING DETAIL (S = 1/1) (73) DETAIL (S = 1/5)

NO.	SIZE	NO. PART	ST'D TYPE NO.	SERVICE	RATING	MAT'L	THK	MAT'L	THK	PROJECT	REMARKS
SO11	6"	1	74	AA-114-B-11D	SKIRT OPEN	—	—	40	STPG38	—	—
N11B	2"	1	74	AA-114-B-11D	BRIDLE	ANSI 150 WNR F	SA105	160	SA106GrB	*12	SA285GrC 1175
SO3	6"	1	62	AA-115-A-11A	SKIRT OPEN	—	—	40	STPG38	—	—
SA	24"	1	73	AS SHOWN	SKIRT ACCESS	—	—	44	SS41	—	—
SV	4"	1	72	AS SHOWN	SKIRT VENT	—	—	40	STPG38	—	—
M1	18"	1	71	SEE DWG. NO. B-8025397	MANHOLE	ANSI 150 WNR F	SA105	*12	SA285GrC	*12	SA285GrC 1275 W/HINGE
N11A	2"	1	70	AA-101-A-11A	BRIDLE	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N10B	2"	1	69	AA-101-A-11A	LEVEL SWITCH H.	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N9B	2"	1	66	AA-101-A-11A	LEVEL SWITCH H.H	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N8	1"	1	67	AA-310-A-33A	PRESS. INDIC.	ANSI 150 WNR F	—	—	—	—	1175
N7	6"	1	66	AA-101-B-11A	SAFETY VALVE	ANSI 150 WNR F	—	80	SA106GrB	*12	SA285GrC AS SHOWN
N6	2"	1	62	AA-115-A-11A	DRAIN	—	—	160	SA106GrB	*12	SA285GrC 1175
N5	1 1/2"	1	64	AA-101-A-11A	UTILITY	—	—	160	SA106GrB	*12	SA285GrC 1175
N4	1 1/2"	1	63	AA-101-B-11A	VENT	—	—	160	SA106GrB	*12	SA285GrC 1175
N3	2"	1	62	AA-115-A-11A	COND. OUTLET	—	—	160	SA106GrB	*12	SA285GrC 1175
N2	16"	1	61	AA-101-A-11A	VAPOR OUTLET	—	—	160	SA106GrB	*12	SA285GrC 1175
N1	16"	1	60	AA-101-A-11A	VAPOR INLET	ANSI 150 WNR F	SA105	*12	SA285GrC	*12	SA285GrC 1275

(23) DETAIL (S = 1/8)



SKIRT INSIDE



FINAL U

CXK 340

(72) DETAIL (S = 1/5)

NO.	SIZE	NO. PART	ST'D TYPE NO.	SERVICE	RATING	MAT'L	THK	MAT'L	THK	PROJECT	REMARKS
SO11	6"	1	74	AA-114-B-11D	SKIRT OPEN	—	—	40	STPG38	—	—
N11B	2"	1	74	AA-114-B-11D	BRIDLE	ANSI 150 WNR F	SA105	160	SA106GrB	*12	SA285GrC 1175
SO3	6"	1	62	AA-115-A-11A	SKIRT OPEN	—	—	40	STPG38	—	—
SA	24"	1	73	AS SHOWN	SKIRT ACCESS	—	—	44	SS41	—	—
SV	4"	1	72	AS SHOWN	SKIRT VENT	—	—	40	STPG38	—	—
M1	18"	1	71	SEE DWG. NO. B-8025397	MANHOLE	ANSI 150 WNR F	SA105	*12	SA285GrC	*12	SA285GrC 1275 W/HINGE
N11A	2"	1	70	AA-101-A-11A	BRIDLE	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N10B	2"	1	69	AA-101-A-11A	LEVEL SWITCH H.	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N9B	2"	1	66	AA-101-A-11A	LEVEL SWITCH H.H	ANSI 150 WNR F	—	160	SA106GrB	*12	SA285GrC 1175
N8	1"	1	67	AA-310-A-33A	PRESS. INDIC.	ANSI 150 WNR F	—	—	—	—	1175
N7	6"	1	66	AA-101-B-11A	SAFETY VALVE	ANSI 150 WNR F	—	80	SA106GrB	*12	SA285GrC AS SHOWN
N6	2"	1	62	AA-115-A-11A	DRAIN	—	—	160	SA106GrB	*12	SA285GrC 1175
N5	1 1/2"	1	64	AA-101-A-11A	UTILITY	—	—	160	SA106GrB	*12	SA285GrC 1175
N4	1 1/2"	1	63	AA-101-B-11A	VENT	—	—	160	SA106GrB	*12	SA285GrC 1175
N3	2"	1	62	AA-115-A-11A	COND. OUTLET	—	—	160	SA106GrB	*12	SA285GrC 1175
N2	16"	1	61	AA-101-A-11A	VAPOR OUTLET	—	—	160	SA106GrB	*12	SA285GrC 1175
N1	16"	1	60	AA-101-A-11A	VAPOR INLET	ANSI 150 WNR F	SA105	*12	SA285GrC	*12	SA285GrC 1275

NOZZLE SCHEDULE

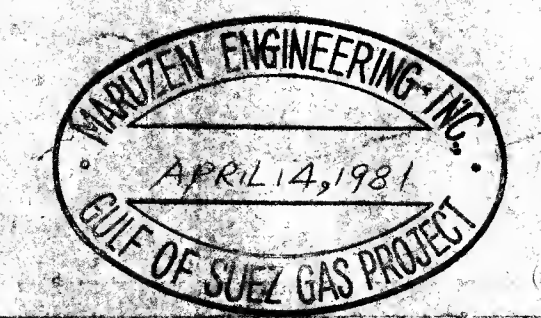
- APPLICABLE CODE
ASME BOILER AND PRESSURE VESSEL CODE SECTION VIII
DIVISION 1, 1977 EDITION INCLUDING 1979 SUMMER ADDENDA.
- WELDING MATERIAL
(1) SMAW - SFAS.1 E-7016 - TRADE NAME LB-52
(2) GTAW - - - - - TRADE NAME TGS-50
(3) SAW - SFAS.17 F76-EH14- TRADE NAME MF38-US36
- RADIOGRAPHIC EXAMINATION FOR WELD
IN ADDITION TO SPOT RADIOGRAPHY PER UW-11(b), HEAD TO SHELL JOINT SHALL BE PARTIALLY RADIOGRAPHED PER UW-11(a)(5)(b).
- WELD HARDNESS
(1) HARDNESS TEST SHALL BE CARRIED OUT AND HARDNESSES SHALL NOT EXCEED HB 200.
(2) THE NUMBER AND LOCATION OF HARDNESS TEST SHALL BE AS FOLLOWS:
• ONE FOR EACH 10 FEET, OR FRACTION THEREOF, FOR EACH LONGITUDINAL SEAM.
• ONE FOR EACH 10 FEET, OR FRACTION THEREOF, FOR EACH CIRCUMFERENTIAL SEAM.
• ONE FOR EACH NOZZLE TO SHELL WELD
• ONE FOR EACH AREA WHERE TEMPORARY WELD WAS REMOVED.
• LOCATION TO BE TESTED SHALL BE AT OR NEAR THE CENTER OF THE WELD.
• SURFACE TO BE TESTED SHALL BE ON THE SIDE EXPOSED TO THE PROCESS ENVIRONMENT.
WHERE NOT PRACTICAL, TEST SHALL BE MADE ON THE OPPOSITE SIDE.
- VESSEL AND ITS SUPPORT ARE CAPABLE OF A FIELD HYDROSTATIC TEST.
- EXTERNAL ATTACHMENTS WHOSE WELD CROSS VESSEL SEAM SHALL BE CUT OUT LOCALLY SO AS TO AVOID INTERSECTION OF EACH WELDS.
- FLANGE BOLT HOLES SHALL STRADDLE THE VERTICAL OR EAST-WEST, NORTH-SOUTH HORIZONTAL CENTER LINES.
- GASKET SURFACE SHALL HAVE A SERRATED FACING FINISH IN ACCORDANCE WITH ANSI B16.5.
- HYDROSTATIC PRESSURE TEST
(1) HYDROSTATIC PRESSURE TEST SHALL BE CARRIED OUT IN ACCORDANCE WITH UG-99(b) OF ASME SECT.VIII DIV.1.
(2) TEST PRESSURE SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN HALF AN HOUR.
(3) CHLORIDE CONTENTS OF WATER SHALL NOT EXCEED 3000PPM.
- LEAKAGE TEST
(1) ALL REINFORCING PAD WELDS FOR NOZZLES SHALL BE CHECKED FOR LEAK WITH MINIMUM AIR PRESSURE OF 1 KG/CM² (15 PSIG)
(2) TEST HOLES ON REINFORCING PAD SHALL BE FILLED WITH STIFF GREASE AFTER HYDROSTATIC TESTING.
- FABRICATION TOLERANCE SHALL BE IN ACCORDANCE WITH C.F. BRAUN'S SPECIFICATION 9211-100-100-7.
- SHOP PAINTING
SEE DWG. NO. C-8025674

- DEMISTER SHALL BE ASSEMBLED AT SHOP BEFORE SHIPPING.
- QUANTITIES LISTED ARE FOR ONE VESSEL.
TOTAL REQUIRED - 3 VESSELS

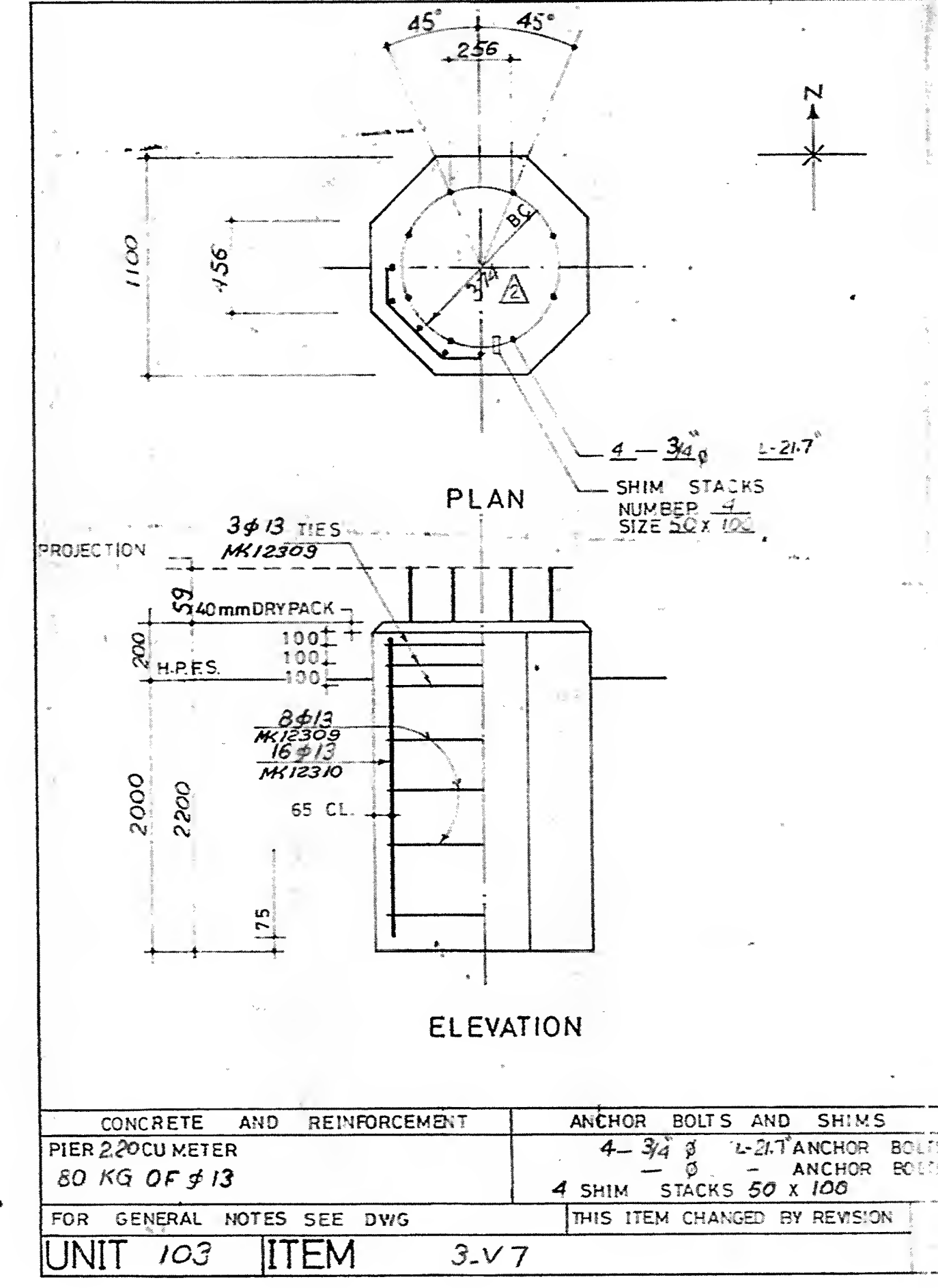
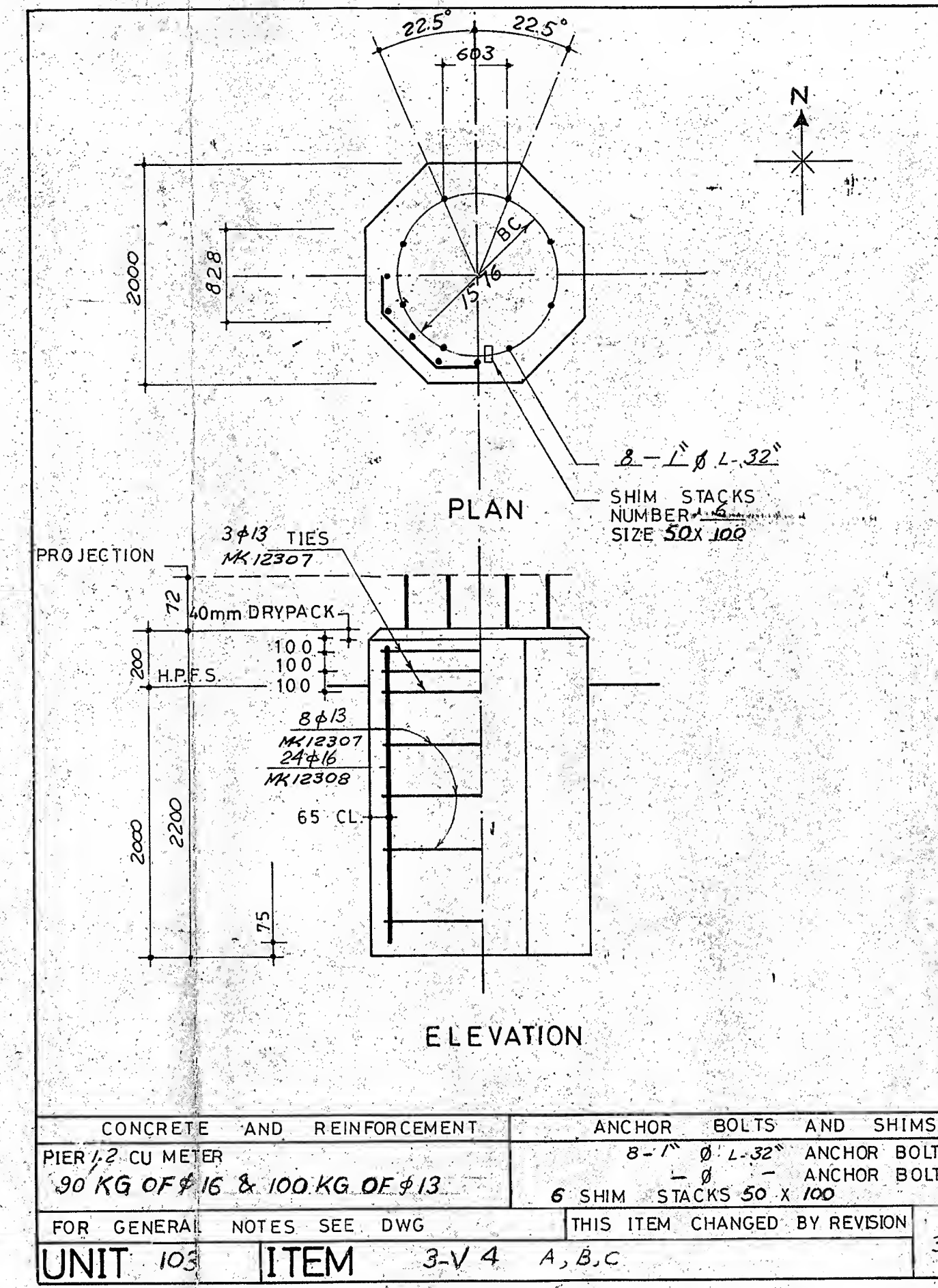
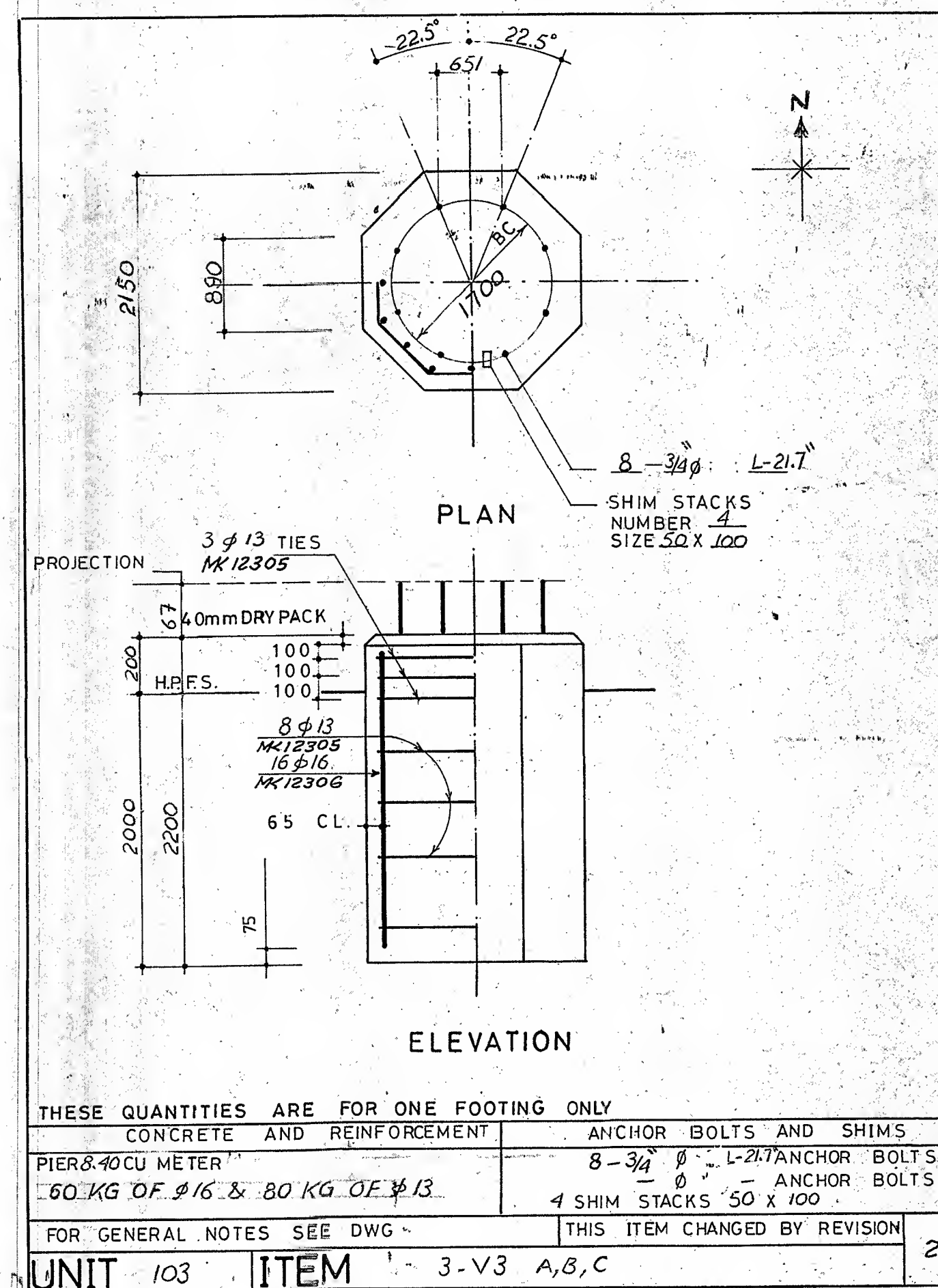
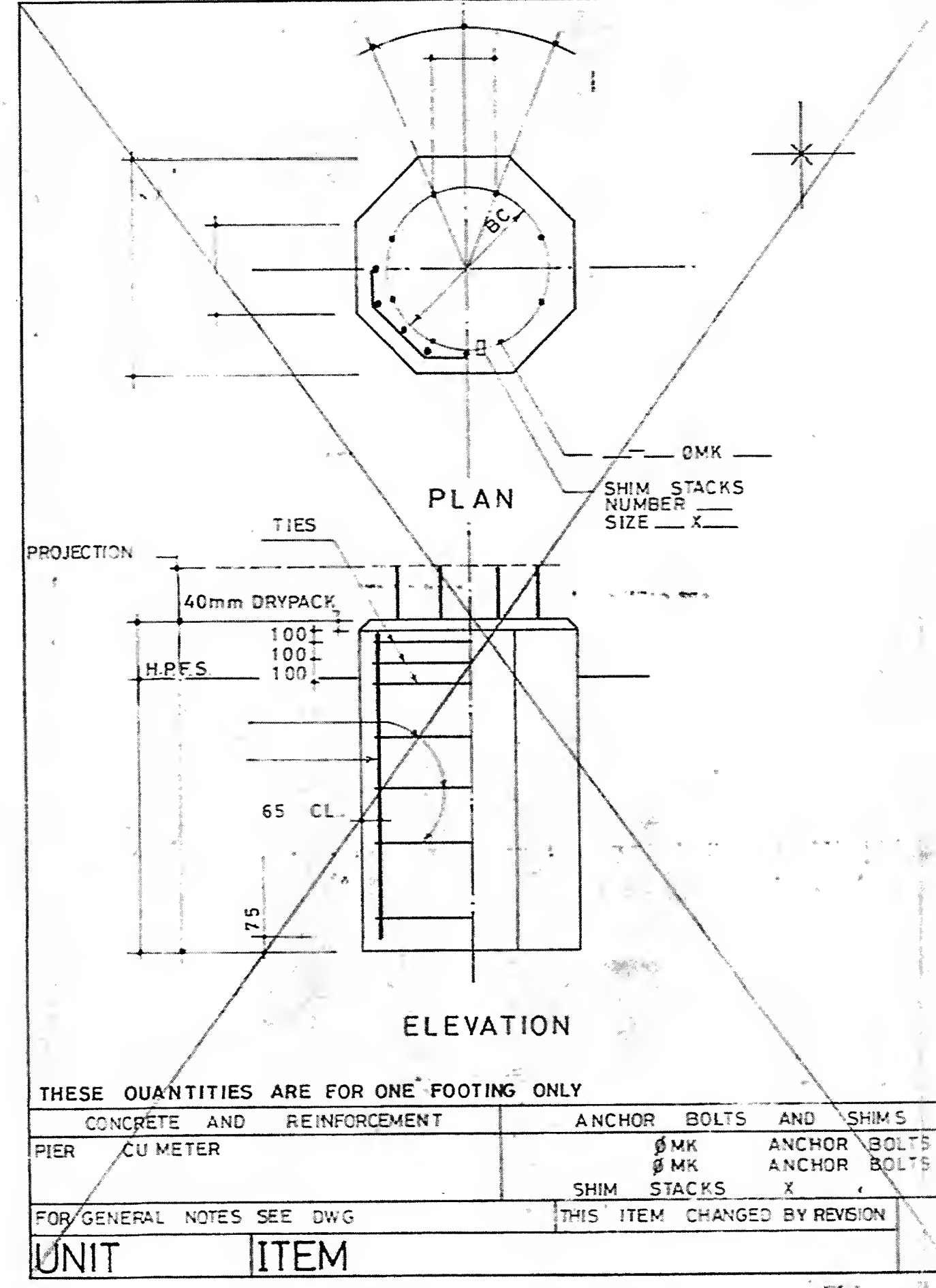
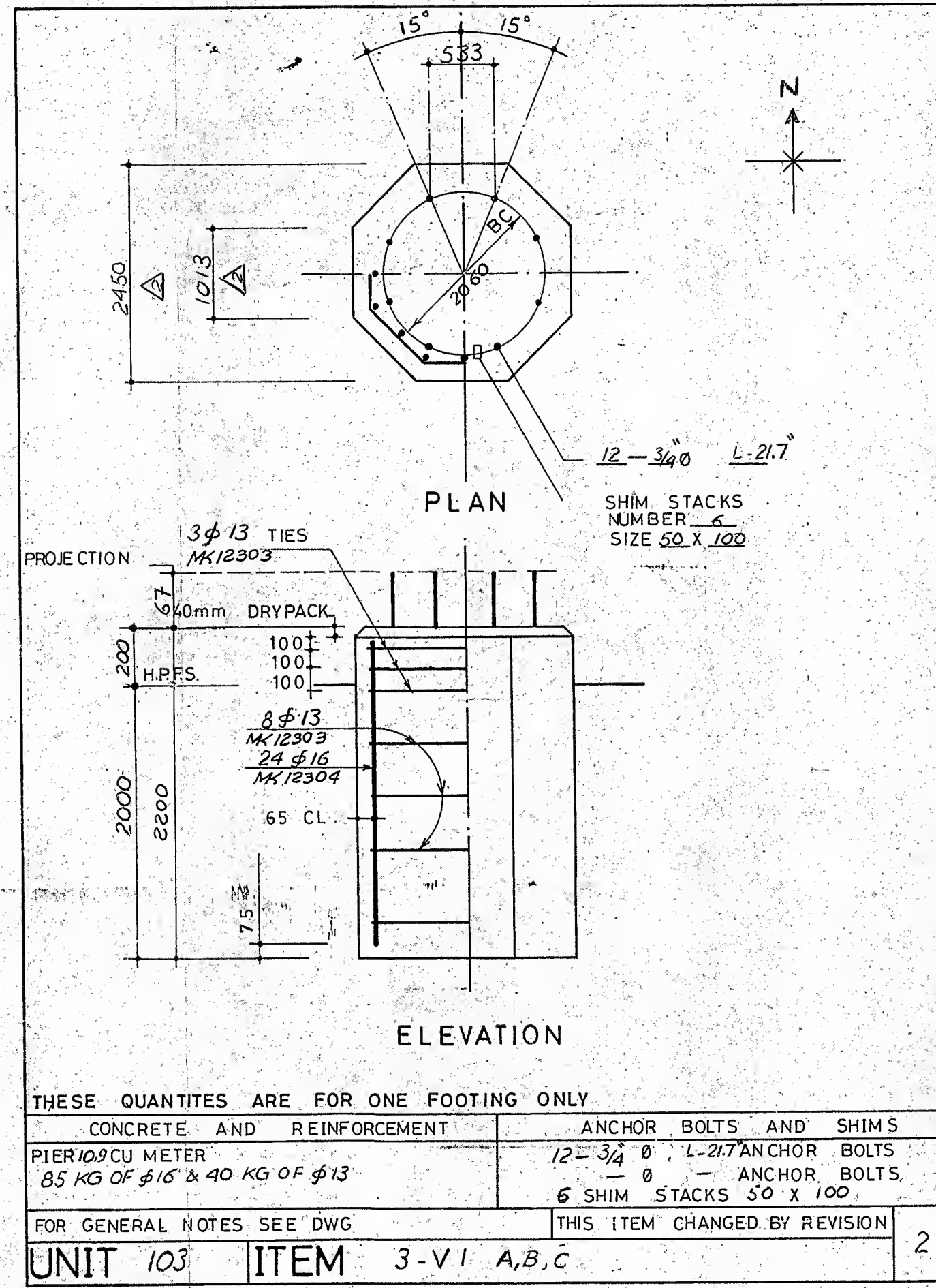
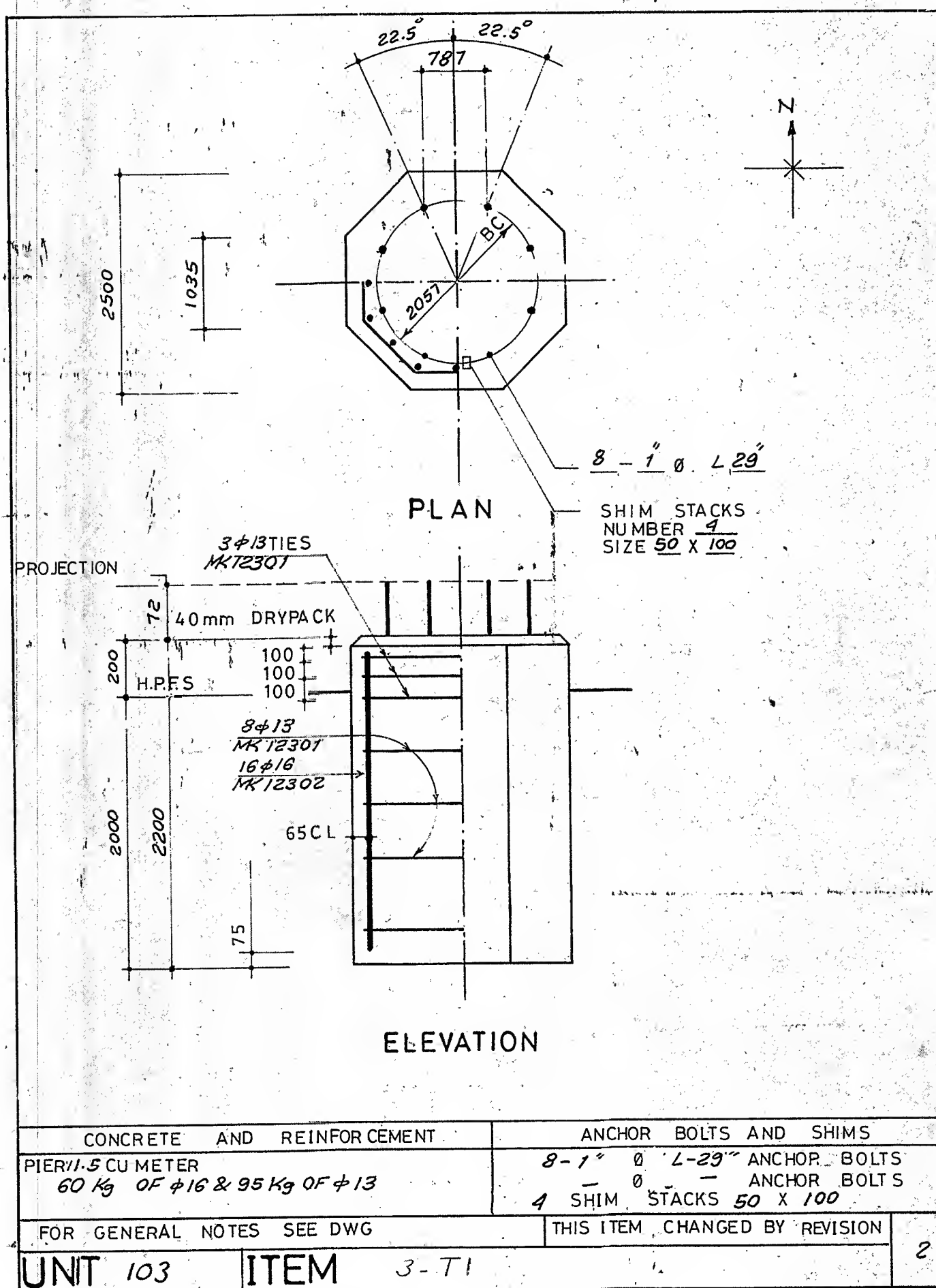
- SUPPORT SKIRT
(1) WELDING APPLICATION FOR CIRCUMFERENTIAL AND LONGITUDINAL SEAMS OF THE SKIRT SHALL BE SAW.
(2) SPOT RADIOGRAPHY SHALL BE MADE OF EACH INTERSECTION OF CIRCUMFERENTIAL AND LONGITUDINAL SHELL SEAM.
IN ADDITION, ONE RADIOGRAPH SHALL BE TAKEN FOR EACH 15 METER (50 FEET) OF WELD AT LOCATION CHOSEN BY THE CUSTOMER'S INSPECTOR.
RADIOGRAPHY SHALL COMPLY WITH ASME SECT. VIII DIV. 1 WITH INTERPRETATION COMPLYING WITH UW-51.

REV NO.	DATE	SIGNED
1	AUG. 12, 80	[Signature]
2	OCT. 7, 80	[Signature]
3	DEC. 6, 80	[Signature]
4	FEB. 27, 81	[Signature]

REGULATION	CODE	FLUID NAME	OPERATING PRESSURE	OPERATING TEMPERATURE	DESIGN PRESSURE	DESIGN TEMPERATURE	RADIOGRAPHY	SHELL/HEAD	JOINT TYPE	JOINT EFFICIENCY	SHELL/HEAD	CORROSION ALLOWANCE	POSTWELD HEAT TREATMENT	HYDRAULIC TEST PRESSURE	PNEUMATIC TEST PRESSURE	SHIPPING WEIGHT	OPERATING WEIGHT	INTERNAL WEIGHT	EXTERNAL WEIGHT	FULL WATER WEIGHT	VOLUME	INSULATION	FIRE PROOFING	NUMBER REQUIRED
ASME SECT. VIII DIV. 1	UP TO 1979 SUMMER ADDENDA	LIGHT HYDROCARBON GAS	0.9 MPa	30 °C	29.8 FV	60 °C	SPOT (SEE NOTE 3)	DOUBLE WELDED BUTT JOINT	85/100%	3.0	NO	4.4 MPa	—	3500 kg	10500 kg	—	—	—	—	19200 kg	11.34 m ³	NO	YES (SKIRT)	3



NO.	DESCRIPTION	MAT'L	QTY	REMARKS
1	SHELL PLATE	SA285	1	
2	HEAD PLATE	SA285	2	
3	SKIRT PLATE	SA285	1	
4	BASE BLOCK	—	1	
5	BASE PLATE	SS41	1	
6	GUSSET	—	24	
7	WASHER	—	12	
8	ANCHOR BOLT HEAVY WELD	SS41	12	
9	NAME PLATE	—	1	
10	FIREPROOFING SEAL	C.B	1	
11	INTERNAL RING	ASME	8	
12	CATH PIECE	SS41	1	
13	PLATFORM LADDER CLIP	SA285	1	
14	DEMISTER SUPPORT RING	SA285	1	
15	LIFTING EYE	SA285	1	



NUMBER	REFERENCE
9211-100-300-2	CONCRETE
9211-100-300-5	CONCRETE ACCESSORIES
9211-100-300-7	SHIM AND GROUTING
9211-8-103-FD-123	BAR LIST
9211-103-KE-301	PLOT PLAN

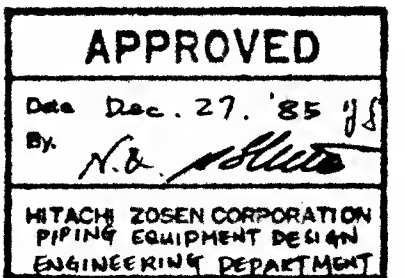
GENERAL NOTES	
1. HIGH POINT FINISHED SURFACE (H.P.F.S.) = ELEV. 26	
2. FOR LOCATION OF FOUNDATIONS SEE DRAWING 92	
3. EACH ITEM FOUNDATION IS ORIENTED BY INDIVIDUAL	
4. FOR DETAILS OF ANCHOR BOLTS SEE SPEC	
5. SOIL REPORT SHOULD BE STRICTLY FOLLOWED	
6. CONCRETE FOOTING ARE CLASS. A, CONCRETE USING	
RESISTING CEMENT	
7. CONCRETE, FOOTINGS TO BE UNDERLAID BY 100 MM	
CONCRETE BLINDING	

ESTIMATED MATERIAL	REVISION
RC (M ³)	30
REINFORCING BARS (TON)	1.3
3/4" L-21.7" ANCH. BOLTS	80
50X100 M.M SHIM STACKS	42
1" L-29" ANCH. BOLTS	0
1" L-32" ANCH. BOLTS	0

REVISION	DATE	DESCRIPTION	BY	CHK	APP
1	12-25-80	3-V4 WAS CHANGED	N.H.	M.A.	S
2		REVISED AS SHOWN	N.H.	M.A.	S
3		ISSUED FOR CONSTRUCTION	N.H.	M.A.	S
4		ISSUED FOR APPROVAL	N.H.	M.A.	S

NOTICE		CUSTOMER APPROVAL	
THIS DRAWING HAS NOT BEEN PUBLISHED IT IS THE SOLE PROPERTY OF ENPPI AND IS LOANED TO THE CLIENT FOR HIS CONFIDENTIAL USE ONLY AND FOR INFORMATION FOLLOWING IN CONSIDERATION OF THE LOAN OF THE DRAWING THE CLIENT AGREES TO RETURN IT UPON REQUEST AND THAT ENPPI WILL BE NOTIFIED OF ANY DISPOSITION OF THE DRAWING OR ANY PART OF IT IN ANY MANNER THAT IS NOT IN THE INTEREST OF ENPPI			
ISSUED FOR CONSTRUCTION	DATE	CUSTOMER APPROVAL	
BY M.S.	DATE 12-25-80		
DESIGNED N.H.	DRAWN N.HALIM	REVIEWED M.K.	
FOR E.G.P.C.			
BY RAS SHUKHEIR			

GULF OF SUEZ GAS PRO.	
GUPCO GAS GATHERING STA	
VERTICAL VESSEL FOUNDATION	
3V	
الهيدرو سيغ للصناعات البترولية والكيمياوية	
Enppi	
ENGINEERING FOR THE PETROLEUM AND PROCESS	
SCALE NONE	DRAWING NUMBER
9211-1280	9211-103-FD-1



DESIGN DATA		PART NO.		DESIGNATION		MATERIAL		MILL SHEET		QUANT		TOTAL QUANT		REMARKS	
CODE/REGULATION	ASME SEC.VI DIV.1 1983 EDITION UP TO & INCLUDING 1984 WINTER	5													
NO. REQ'D	1 (ONE)	4													
VOLUME	1	3													
DESIGN PRESSURE	11.5 kg/cm ² G	2													
DESIGN TEMPERATURE	165 °C	1													
OPERATING PRESSURE	8.4 kg/cm ² G														
OPERATING TEMPERATURE	131.9 °C														
HYDRO. TEST PRESSURE	17.3 kg/cm ² G														
PIEDMA. TEST PRESSURE	— kg/cm ² G														
POST WELD HEAT TREATMENT	NONE														
RADIOGRAPHED	SPOT														
JOINT EFFICIENCY	SHELL 0.85 HEAD 1.0														
CORR. ALLOWANCE	3.0 mm														
INSULATION	HOT NO. YES (30 mm)														
FIRE PROOF	NO. YES (50 mm)														
PAINTING	BY SPEC.														
ACCESSORY															
SPARE	GASKET 200% B.N. 20%														
WEIGHT: EMPTY	kg														
WEIGHT: OPERATING	kg														
WEIGHT: FULL WATER	kg														

U STAMP

Reviewed by QC
Date: Nov. 12 '85
T. Takahashi
● TOKUYAMA MACHINERY CO. LTD.

Approved By Design Section
Date: Nov. 12, 1985
[Signature]
Manager of Design Section

TM JCS
M7
85-2180

TM-0558

Code No. DT-T102-40-001

CUSTOMER	HZ / EGPC
TMC JOB NO.	85-2180
MICRO	QUANT 1 (ONE)
APPR	DATE OCT. 23 '85
CHECK	SCALE 1/50
DRAWN	GROUP

TOKUYAMA MACHINERY CO. LTD.

GULF OF SUEZ GAS PLANT PHASE II

DEBUTANIZER

4-T102

ASSEMBLY DRAWING

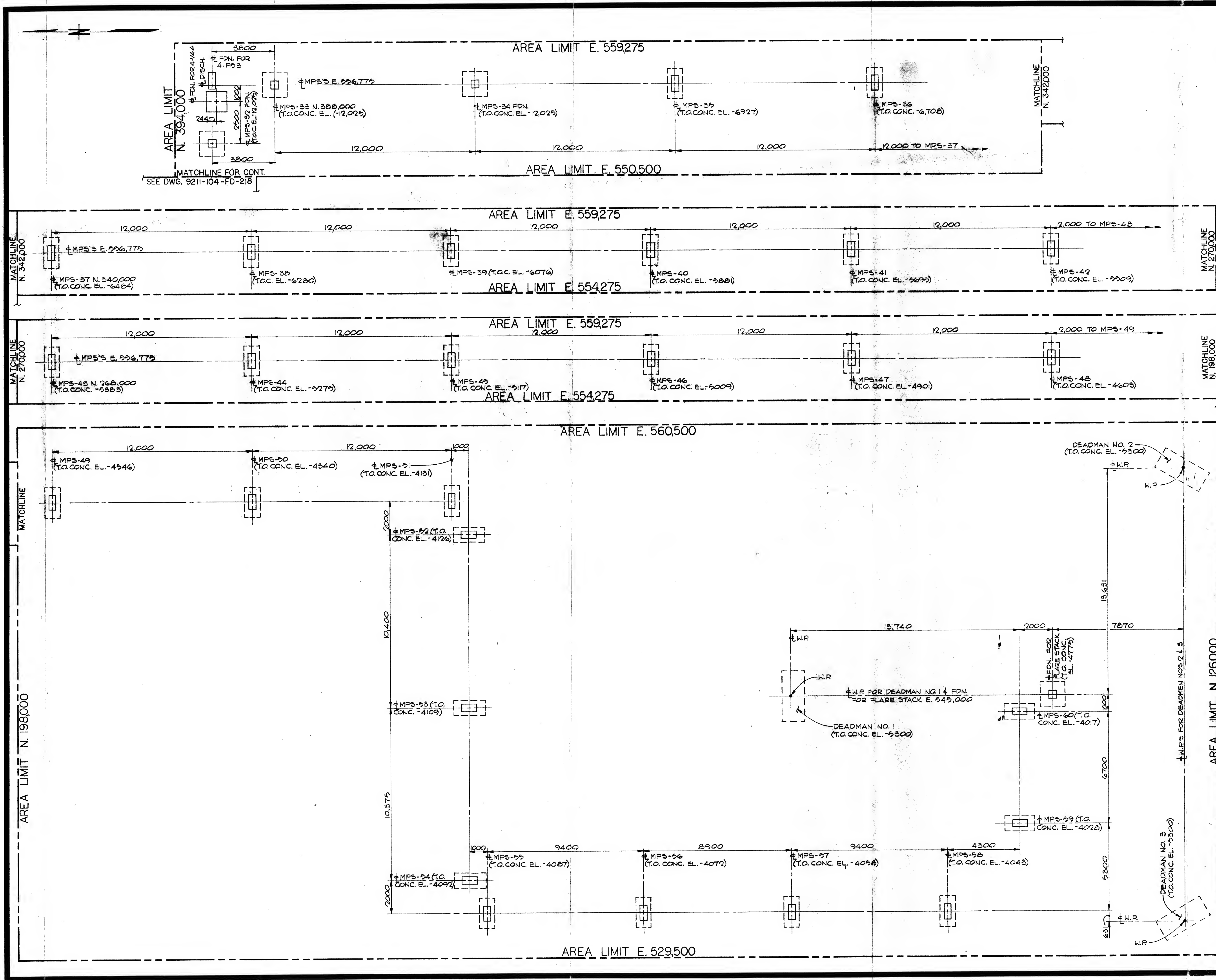
DWG. NO. **TS-1331-01**

WEIGHT: EMPTY	kg
WEIGHT: OPERATING	kg
WEIGHT: FULL WATER	kg

REV. **1**

ISSUED

PLATE SHALL BE KEPT IN
BEFORE RESULTING
PROJECTION PLACES WITH
BAND-SMOOTH WITH
FOR LOCATION AND
LOCATION PLAN ON



GENERAL NOTES:

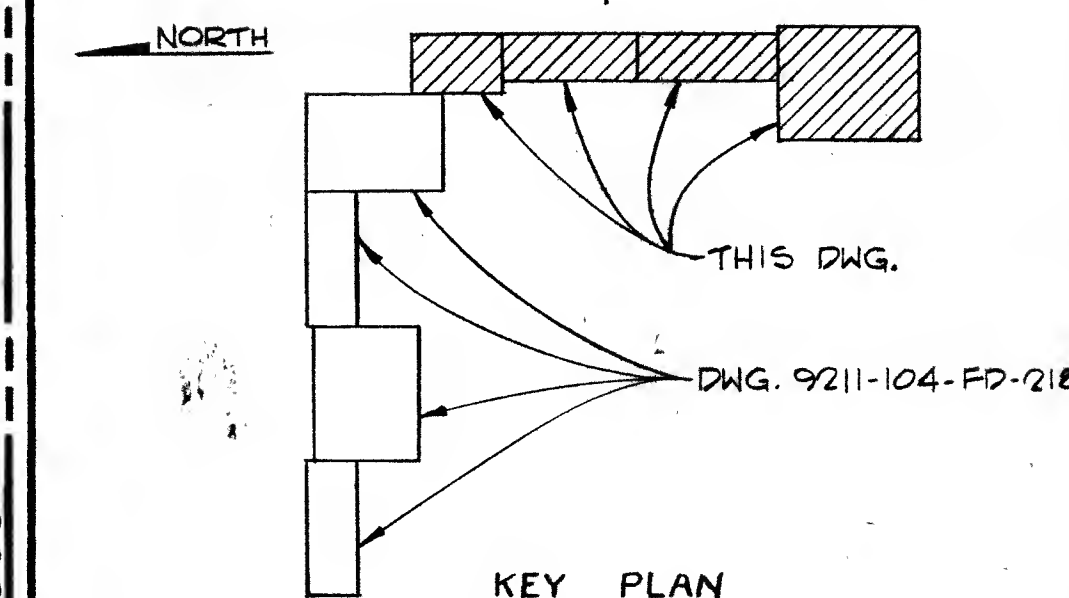
1. FOR GENERAL NOTES AND REFERENCE DRAWINGS SEE DRAWING 9211-104-FD-218.

FIELD VERIFY ALL COORDINATES, DIMENSIONS & ELEVATIONS

REFERENCE DRAWINGS:

9211-104-FD-218 FLARE AREA FDN. LOCATION PLAN SHT. 1 OF 2

APPROVED A. I. O. C. HOUSTON



REV	DATE	DESCRIPTION	BY	CHECKED	DESIGNED	APPROVED
1	8/4/81	ISSUED FOR CONSTRUCTION	N-H			M-S
2	8/4/81	APPROVED FROM A.I.C.C.	RNS	ALD	E.F.	8/4/81
3	8/4/81	ISSUED FOR APPROVAL	RNS	RR	E.F.	8/4/81

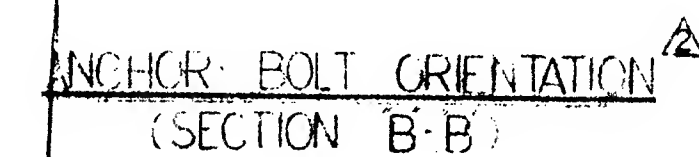
NOTICE
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DESIGNED	DRAWN	REVIEWED	APPROVED
MMS	R. SUTTON	RNS	8/4/81
FOR E.G.P.C.			
AT RAS SHUKHEIR			

GULF OF SUEZ GAS PROJECT
GAS SWEETENING UNIT
AREAS 9A & 9C
STRUCTURAL
FLARE AREA FDN. LOCATION PLAN - SHT. 2 OF 2

الشركة الهندسية للصناعات البترولية والكيمياويات
Enppi إنبي
ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES

SCALE	DRAWING NUMBER	REVISION
1:100	9211-104-FD-219	1
DATE	7-21-81	



REFERENCE DRAWINGS

DESIGN DATA

GENERAL NOTES

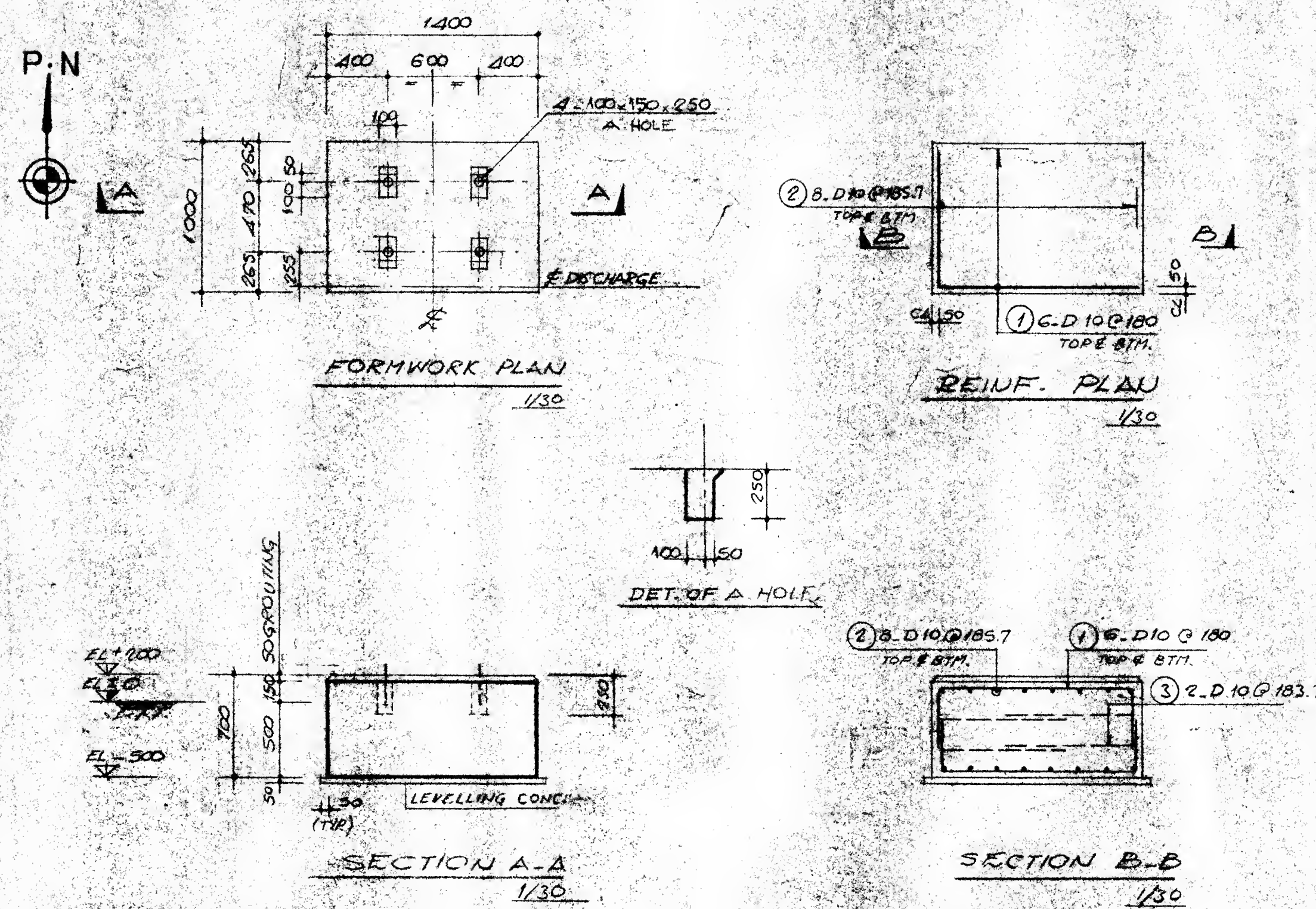
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|------|----|------|---------|--------|---------|---------|-------|----------------|--------------|--------------------------|
| NO. | 80 | 1 | AS | ET | SEE DWG | 13 | 570 | | | |
| | 80 | 150 | V.H. KE | INLET | 112 | 13 | 570 | 163W-039-02 | | |
| MARK | U | SIZE | SCH. | RATING | TYPE | SERVICE | PROJ. | THK'S
OF IN | O.D.
P.D. | (SEE DWG NO.)
REMARKS |

MATERIAL DESCRIPTION

PART NO.	PART NAME	MATERIAL	REQ'D WEIGHT QTY (KG)	USE Dwg No. 3	REMARKS
CUSTOMER			E. G. P. C.	4	SET
DWG/DWG NO.	SCALE	PROJECT	NO. BOOSTER COMPRESSION STATION		
DES. <i>E. G. P. C.</i>	<i>1:20</i>	TITLE 8V-100, 200, 300, 400			
CHK. <i>E. G. P. C.</i>		COMPRESSION SUCTION SCRUBBER			
CHK.		ASSEMBLY			
APP. <i>[Signature]</i>	REF.	DWG NO. <i>1111-163 V - 039 - 00</i>			
	<i>17550-SK-206 REV 0</i>	DEL. <i>0653 - 1400-0134/100-01</i>			


HYUNDAI
 HEAVY INDUSTRIES CO., LTD.
 INDUSTRIAL PLANT DIVISION
 REV
M/K

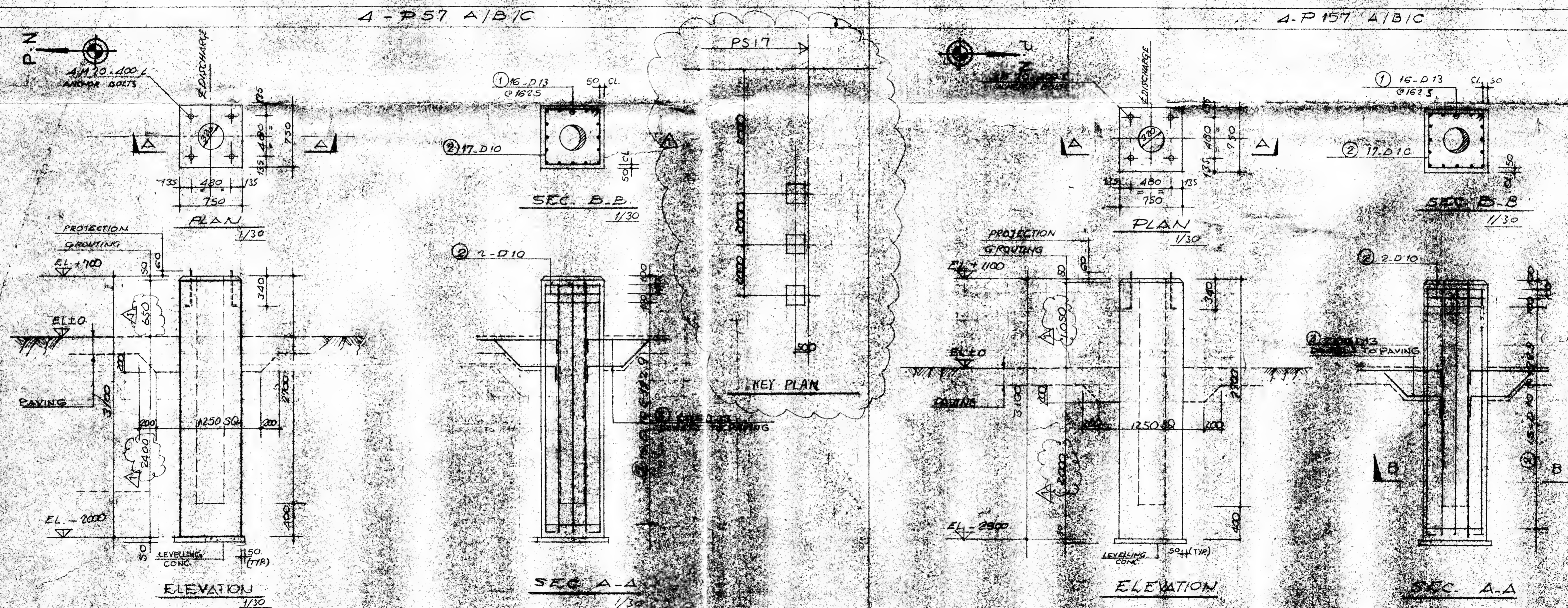
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NOTE:
ALL DIMENSIONS ARE IN M.M

Enpp!
APPROVED
DATE May 12 96

LIST OF MATERIALS			
DESCRIPTION	UNITS	QUANTITY	REM
REINFORCED CONC.	M ³	15.64	
LEVELLING CONC.	M ²	12.75	
FORMWORK	M ²	67.64	
EXCAVATION	M ³	17.43	
BACK FILLING	M ³	2.86	
BAR - D10	KG	215.72	
BAR - D13	KG	318.40	



BAR BENDING SCHEDULE																										
ITEM	A	B	C	D	E	F	G	H	ITEM	A	B	C	D	E	F	G	H	ITEM	A	B	C	D	E	F	G	H
①	13	-	3480	477	2	22		540	⑦	13	180	1000	12				500	⑬	13	1825	3175	15	3	48		2375
②	13	-	2180					540	⑧	13	485.7	1000	16				500	⑭	13	-	2800	17	3	51		2375
③	10	183.3	3300	4				400	⑨	13	182.3	1000	4				500	⑮	13	-	850	2116	3	96		2375
④	13	-	1580	12		2H		500										⑯	13	-	850	2116	3	96		2375

4-P 103 A/B

4-P 104

4-P 105 A/B/C

06291401

EGPC

GULF OF SUEZ GAS PLANT PHASE I
FOUNDATION DETAILS FOR
4-P 103 A/B, 4-P 104
4-P 57 A/B/C & 4-P 157 A/B

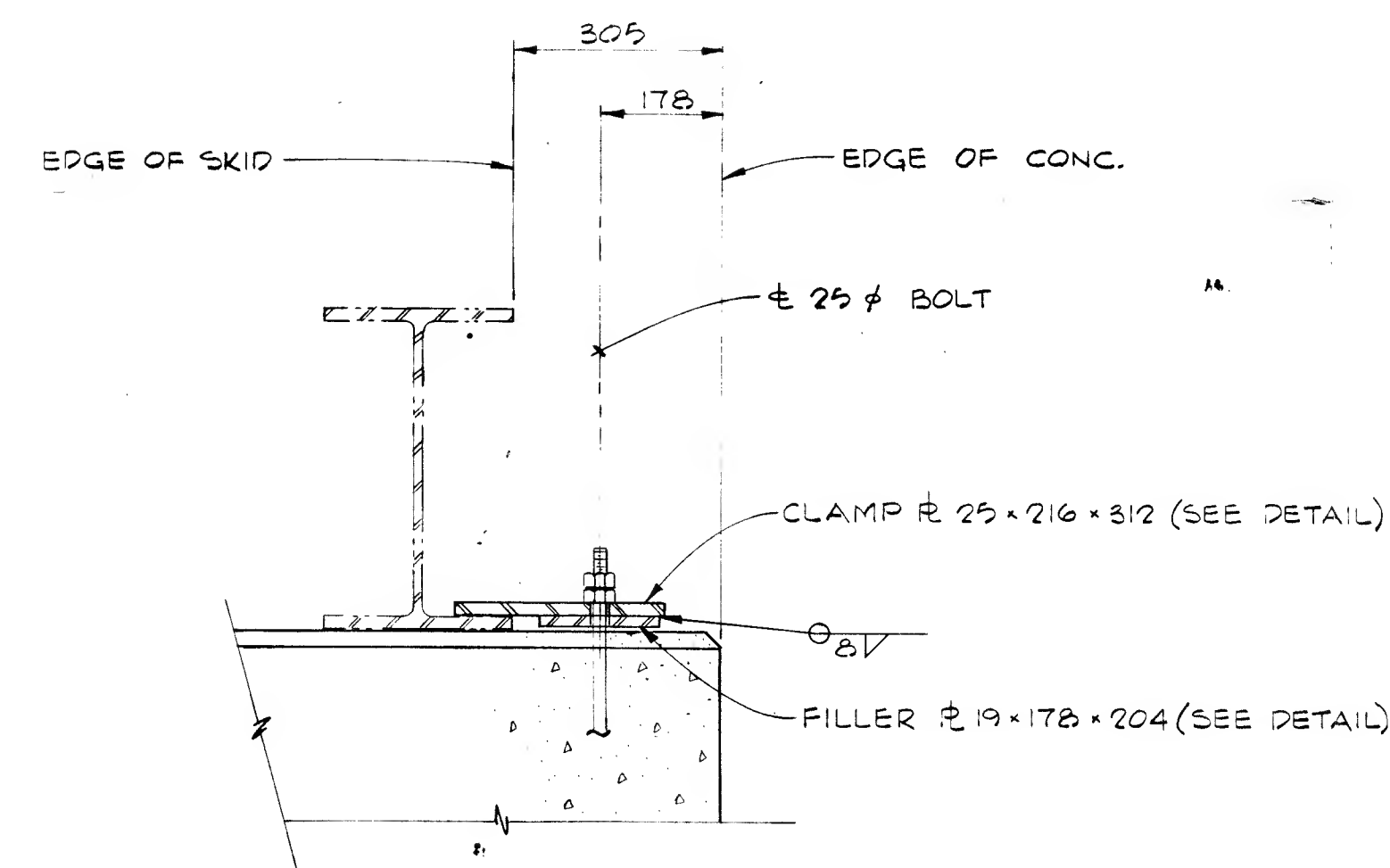
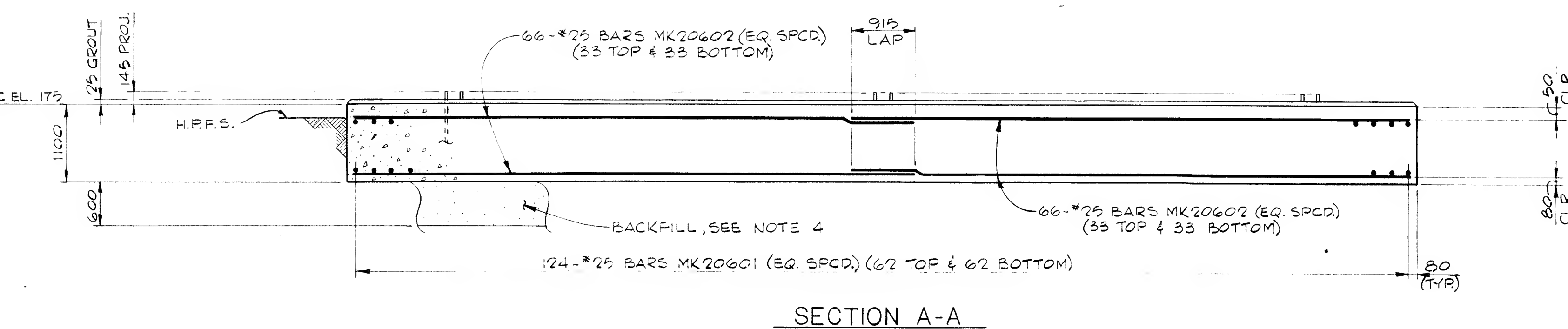
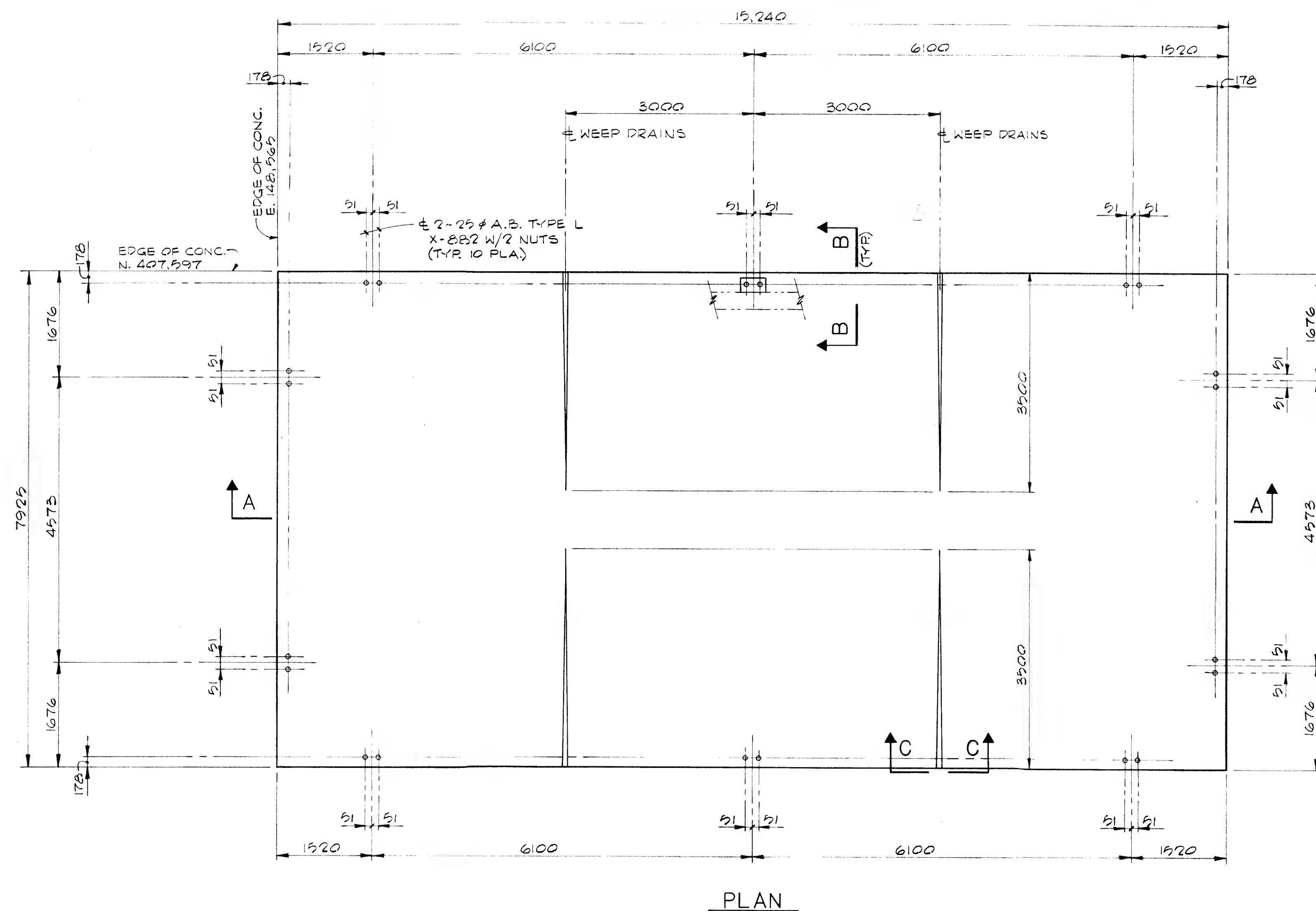
Hitachi Zosen
CIVIL ENGINEERING DEPARTMENT
OSAKA, JAPAN

CHECKED BY
Osamu

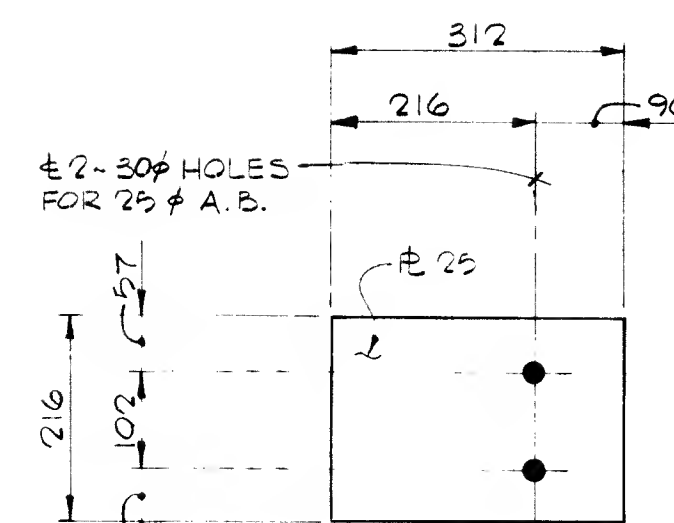
DATE MARCH / 9 / 1985

2/18/85

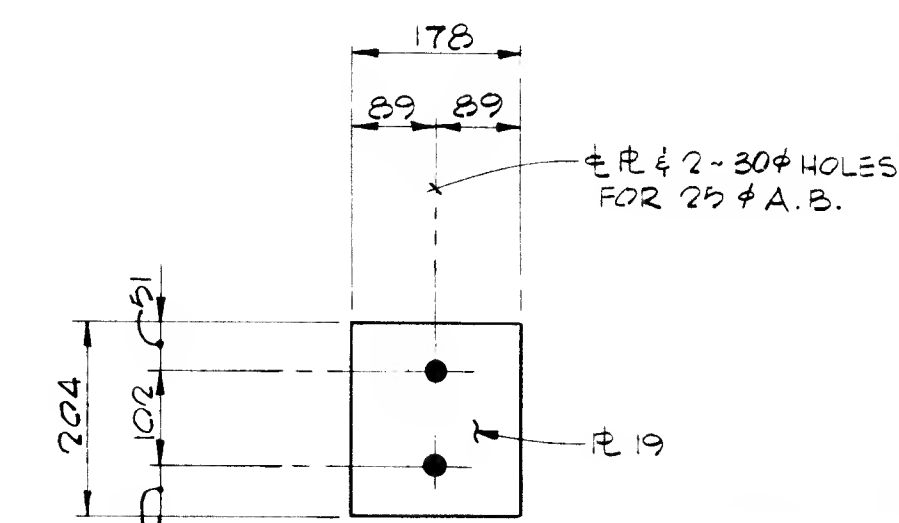
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GULF OF SUEZ GAS PLANT PHASE I FOUNDATION DETAILS FOR A-P 103 A/B , A-P 104 A-P 57 A/B/C & A-P 157 A			
		SCALE 1/32	
Hitachi Zosen		DRAWN BY: JK	
CIVIL ENGINEERING DEPARTMENT OSAKA, JAPAN		CHECKED BY: Osama	
DATE: MARCH / 9 / 1986		RELATED SECTION	
DWG NO 2/85-375	SHEET GOS-EC-200-53-102		



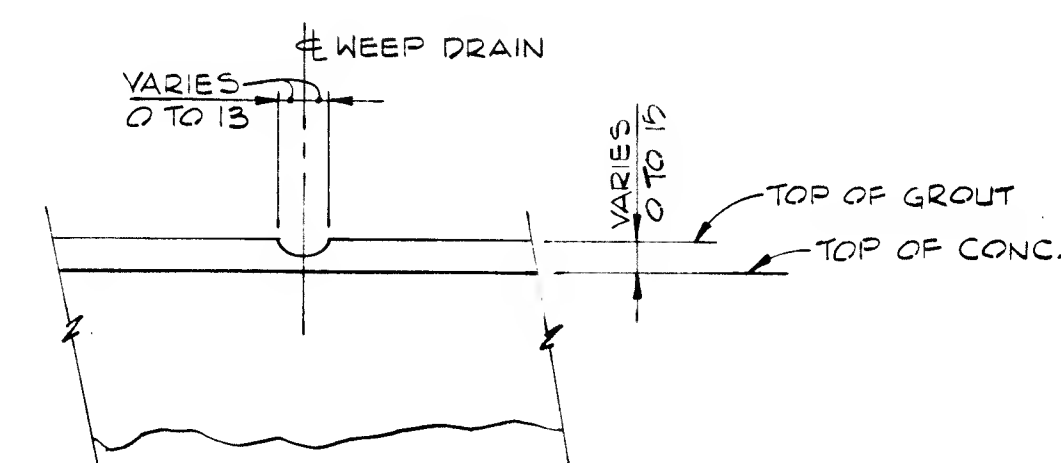
SECTION B-B
(TYP. 10 PLACES)
SCALE: 1:10



CLAMP PLATE DETAIL
NTS



FILLER PLATE DETAIL
NTS



VIEW C-C
NTS

GENERAL NOTES:

1. FOR CONCRETE GENERAL NOTES 9211-104-FD-200.
2. ALL DIMENSIONS ARE IN MILLIMETERS.
3. HIGH POINT FINISHED SURFACE (H.ELEV. 0.00 METERS. H.R.F.S. IS 1/2 MEAN SEA LEVEL.
4. FILL BELOW FOUNDATION TO BE GRAVEL, COARSE SAND OR OTHER.
5. CONCRETE FOR FOUNDATION TO BE MEASURED.
6. GROUT QUANTITY TO BE MEASURED.
7. ALL WELD SIZES ARE IN MILLIMETERS.

ESTIMATED MATERIAL

ESTIMATED MATERIAL	UNIT
CONCRETE	(M ³)
BACKFILL	(M ³)
25 # ANCHOR BOLTS	(EA.)
REBAR	(METRIC TON)
# 25 x 216 x 312	(EA.)
# 19 x 178 x 204	(EA.)

* TOTAL 25 THK. # = 673920 (MM³)
** TOTAL 19 THK. # = 363120 (MM³)

REFERENCE DRAWINGS

9211-104-FD-200	CONCRETE GEN.	ES
9211-104-FD-201	FOUNDATION LOC.	AN
B-9211-104-FD-224	REBAR SCHED. F.	I F
9211-104-SD-207	ANCHOR BOLT	

APPROVED A. I. O. C. HOUSTO

1 624	ISSUED FOR CONSTRUCTION	
11 1/11	APPROVED FROM A.I.O.C.	R
40 6/21	ISSUED FOR APPROVAL	R
REV	DATE	DESCRIPTION

NOTICE	
THIS DRAWING HAS BEEN REVIEWED BY THE SOLE PROPERTY OF THE CLIENT FOR HIS CONFIDENTIAL USE ONLY. IT IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE CLIENT. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF THE CLIENT IS STRICTLY PROHIBITED.	
ISSUED FOR CONSTRUCTION	CUSTOMER AT
BY	DATE
DESIGNED	DRAWN
2 SUTTON	REVIEWED
D.L. DELA	VED

FOR E G O C
AT RAS SHUK-ER

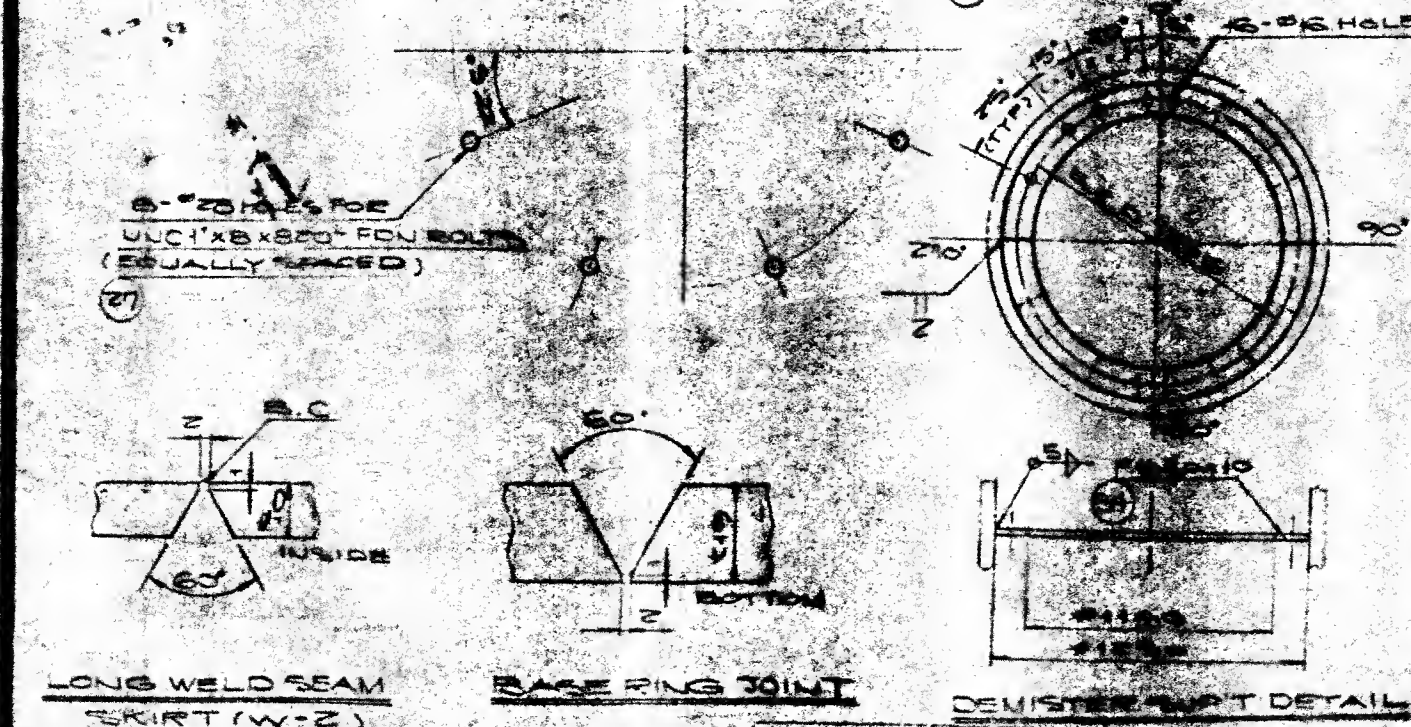
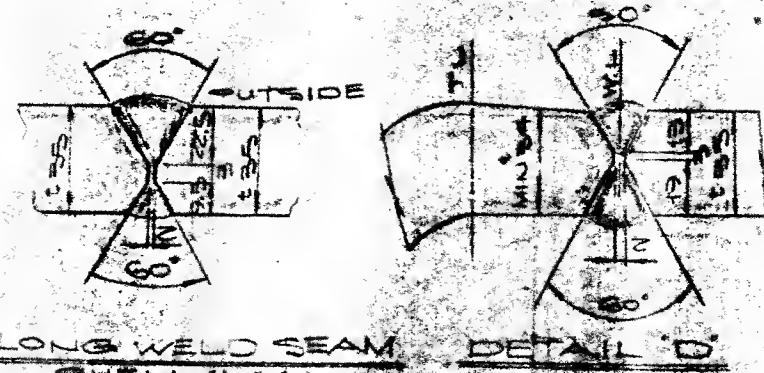
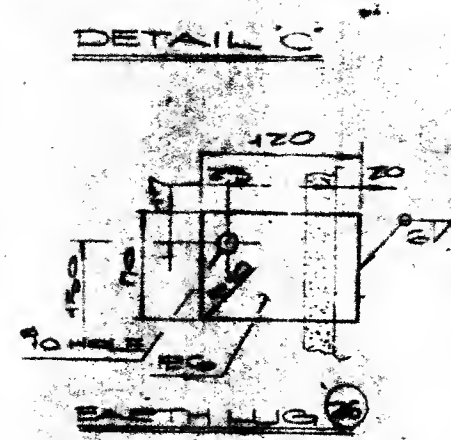
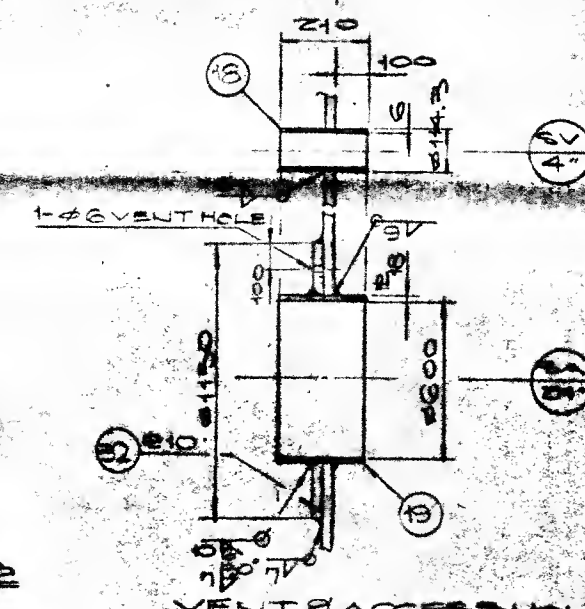
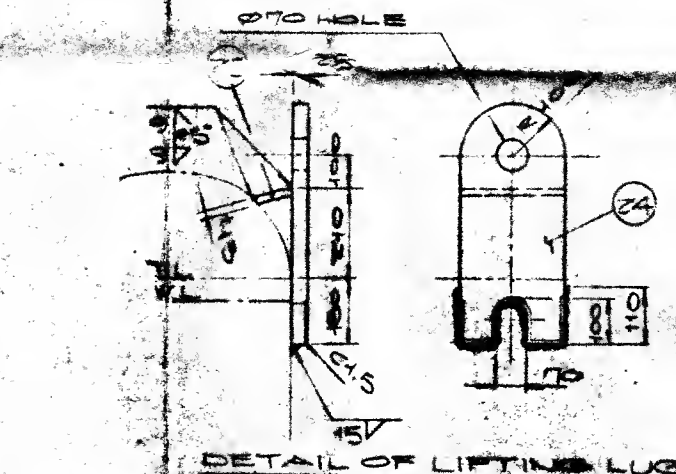
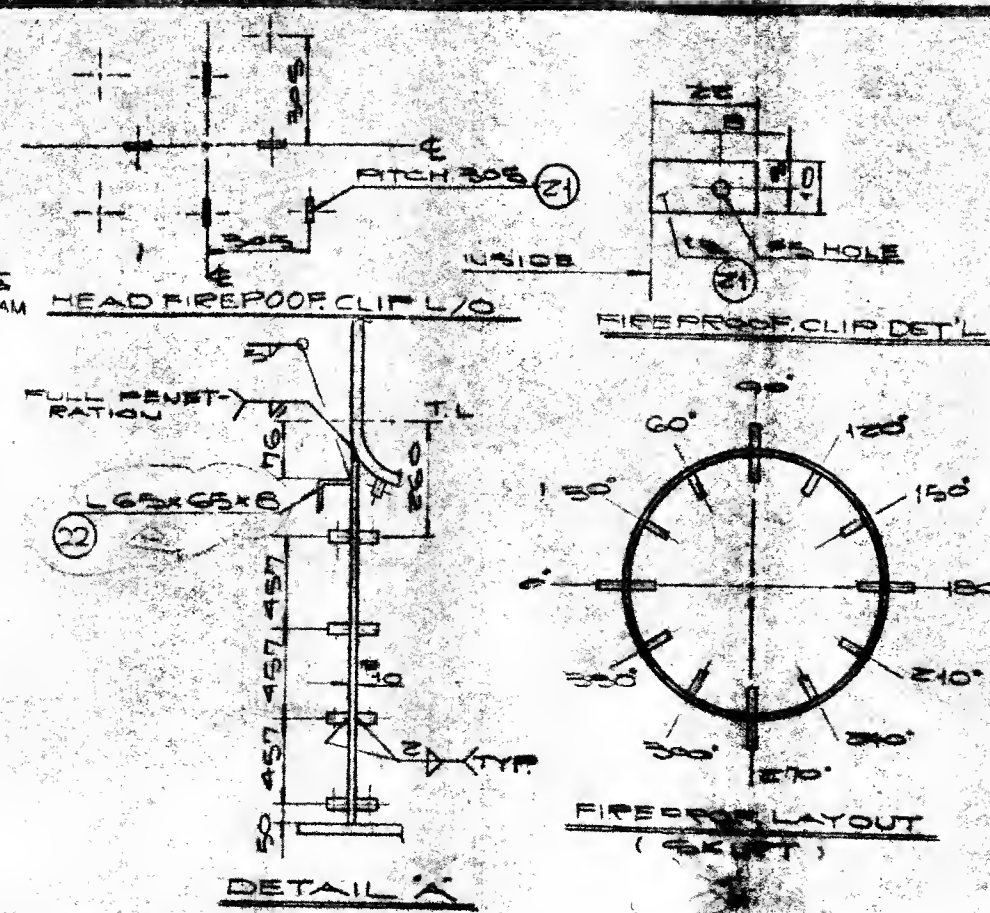
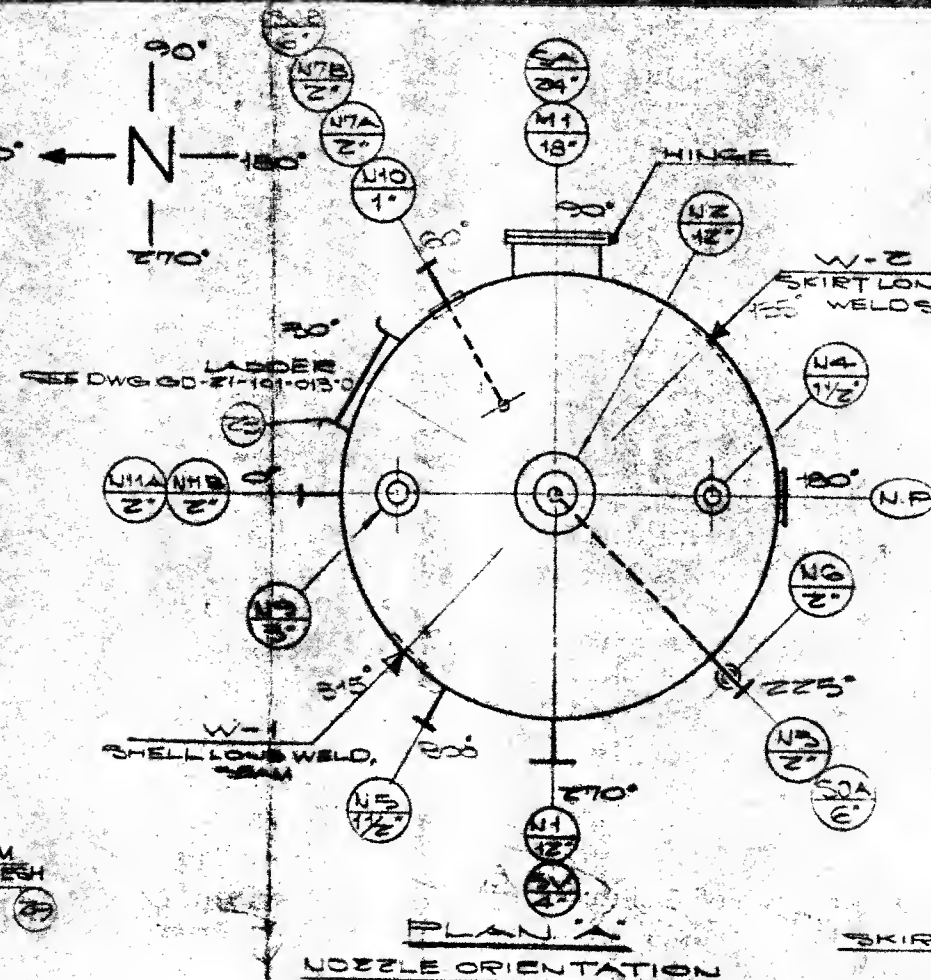
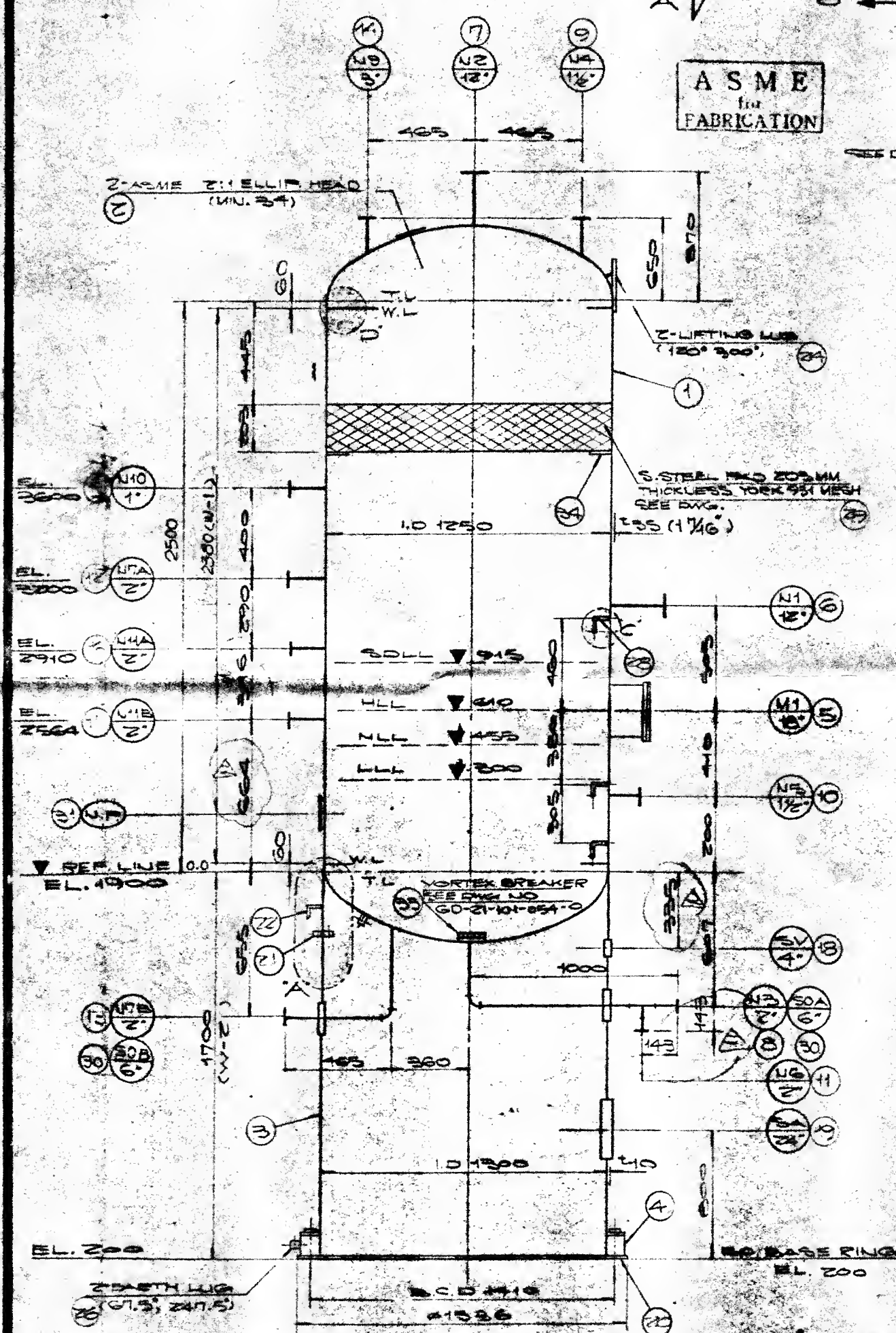
GULF OF SUEZ GAS P
GAS SWEETENING
AREAS 3F & 3H
FOUNDATION FOR SKI

سوق للصناعات البترولية والكيمياويات

Enppi

ENGINEERING FOR THE PETROLEUM AND P

SCALE: 1:50 UN.
DATE: 6-3-81
DRAWING NUMBER: 9211-104-FD-



DESIGN DATA		
CODE: A21E SEC VII DIV 1		
CAPACITY: 3.5	MP	TYPE: SKIRT
FLUID:		NO OF RECD: 2/1000
OPERATING TEMPERATURE	42	
OPERATING PRESSURE	42.7	kg/cm ²
DESIGN TEMPERATURE	3	
DESIGN PRESSURE	42.9	kg/cm ²
HYDRO TEST PRESSURE (SHORT)	99.94	kg/cm ²
HYDRO TEST PRESSURE (LONG)	90.84	kg/cm ²
WIND PRESSURE	100	kg/m ²
SPECIFIC GRAVITY	0.81	
CORROSION ALLOWANCE	3	mm
PST WELD HEAT TREATMENT	YES	
JOINT EFFICIENCY	100	%
RADIOGRAPHIC	FULL	
EARTHQUAKE FACTOR	=	
INSULATION	NO	
PAINTING	SEE NOTE 1, 2	
RAW P (NEW, COLD)	66.63	Kg/m ²
RAW P (CRUDE)	60.45	Kg/m ²
WEIGHT	EMPTY	6674
(TOL)	OPERATING	1786
	FILL OF WATER	10543

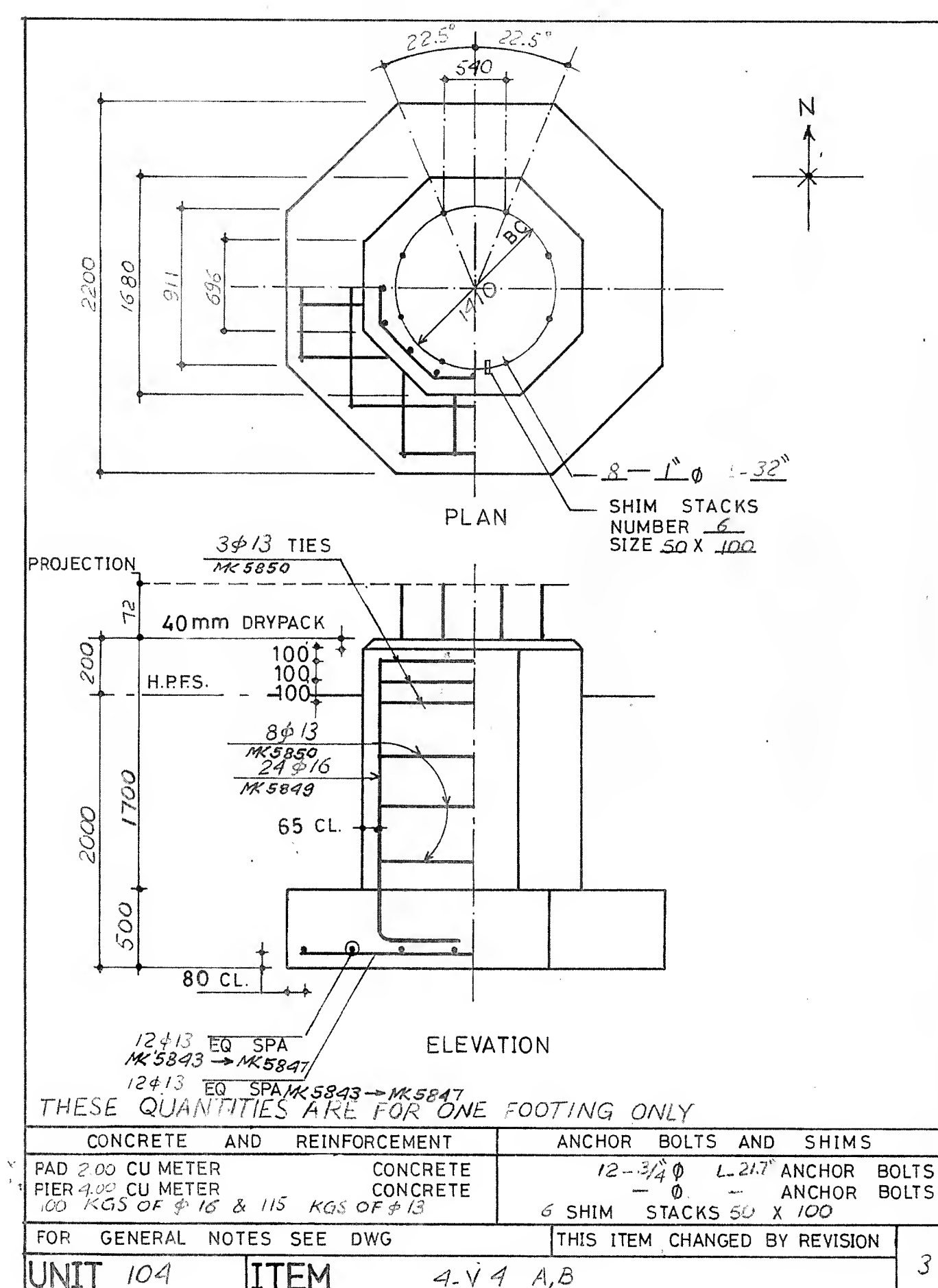
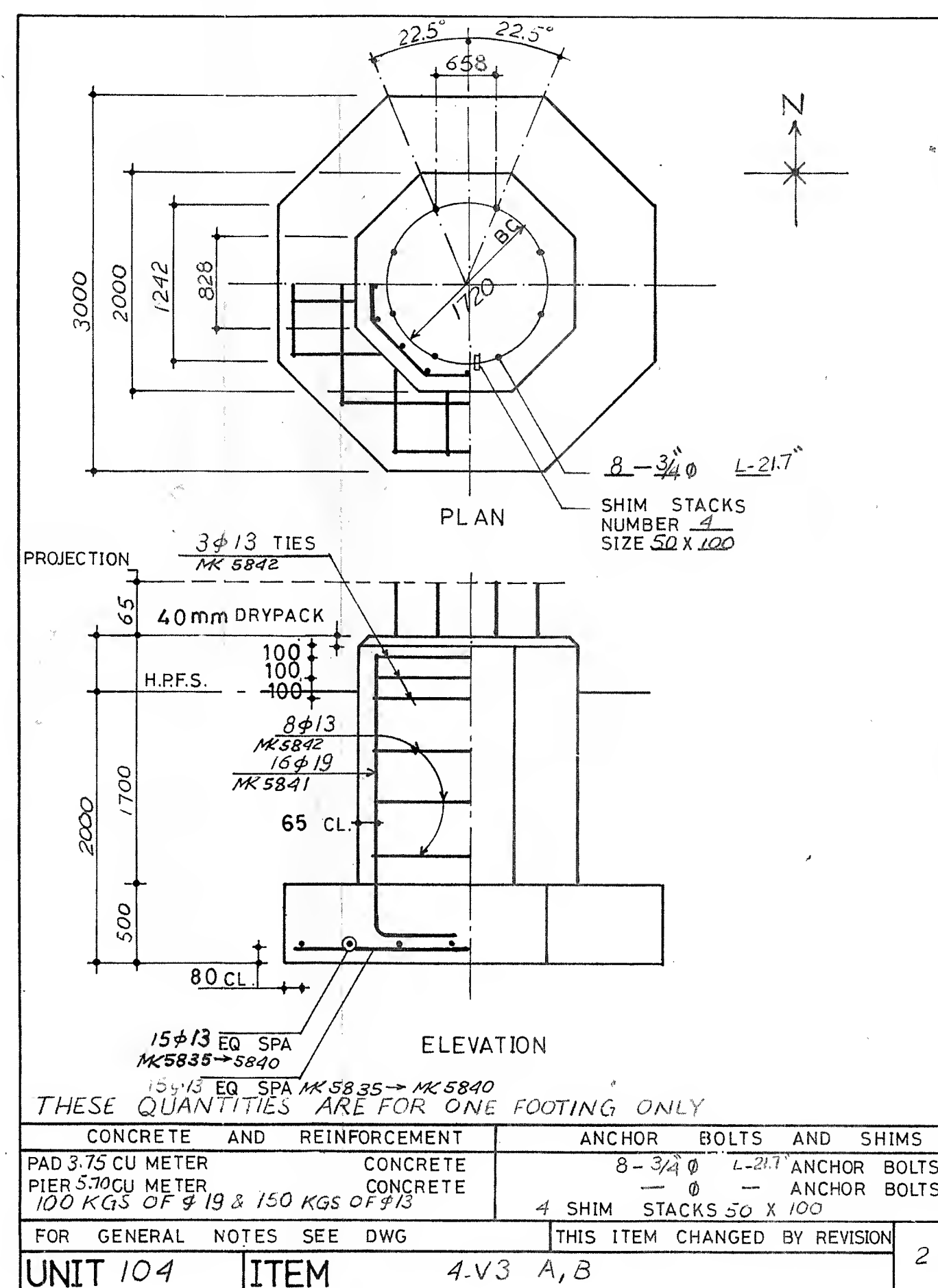
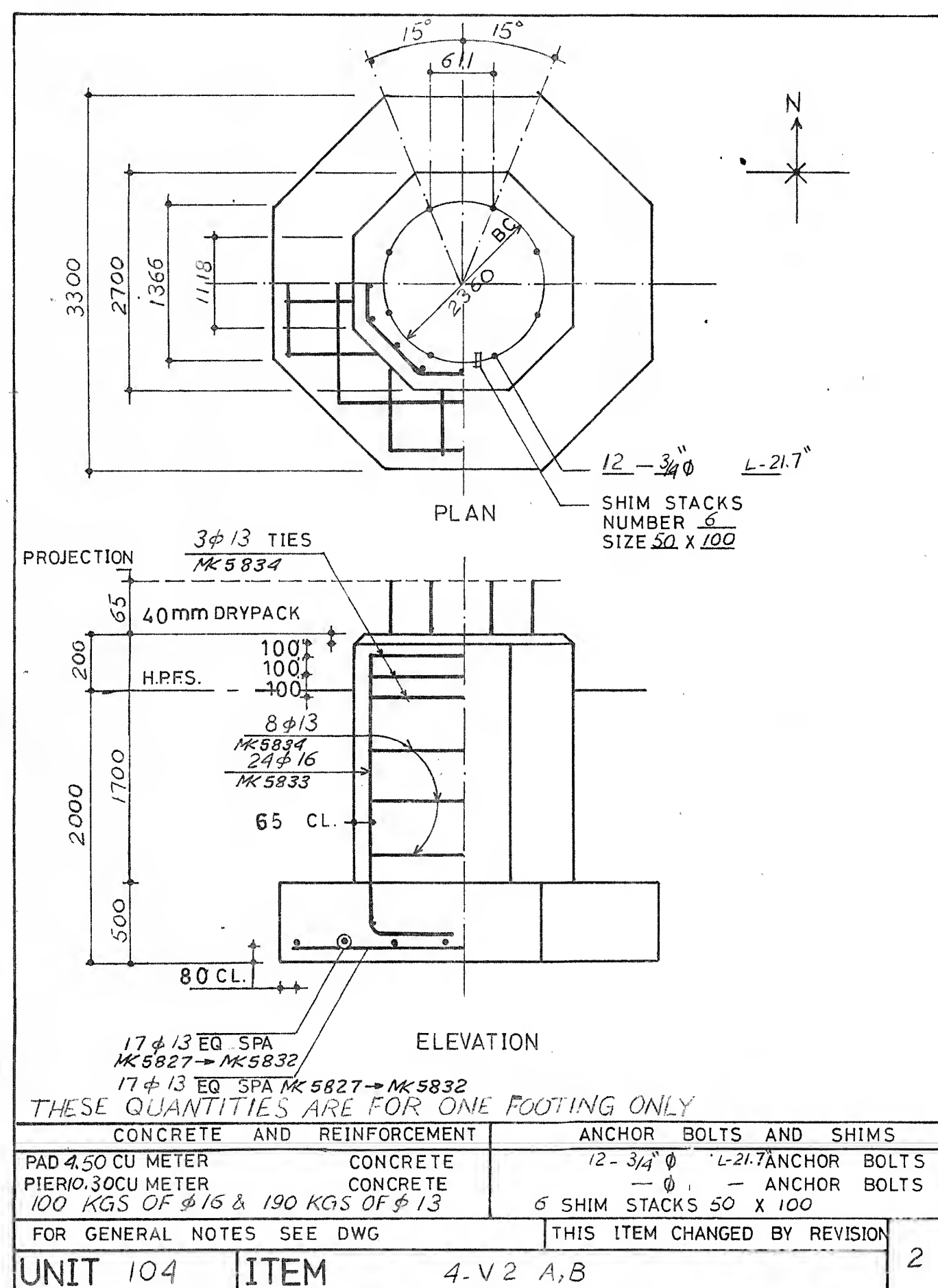
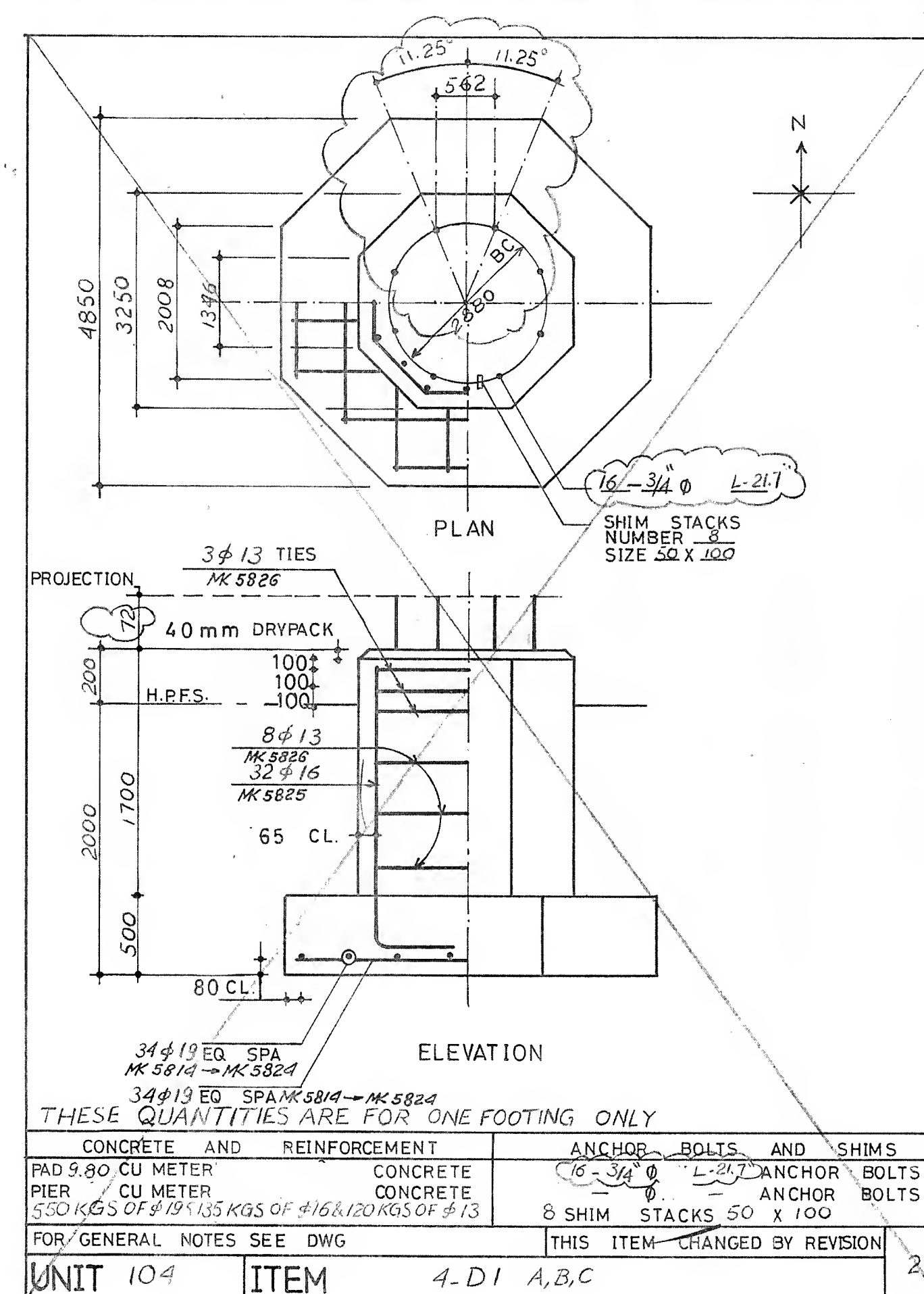
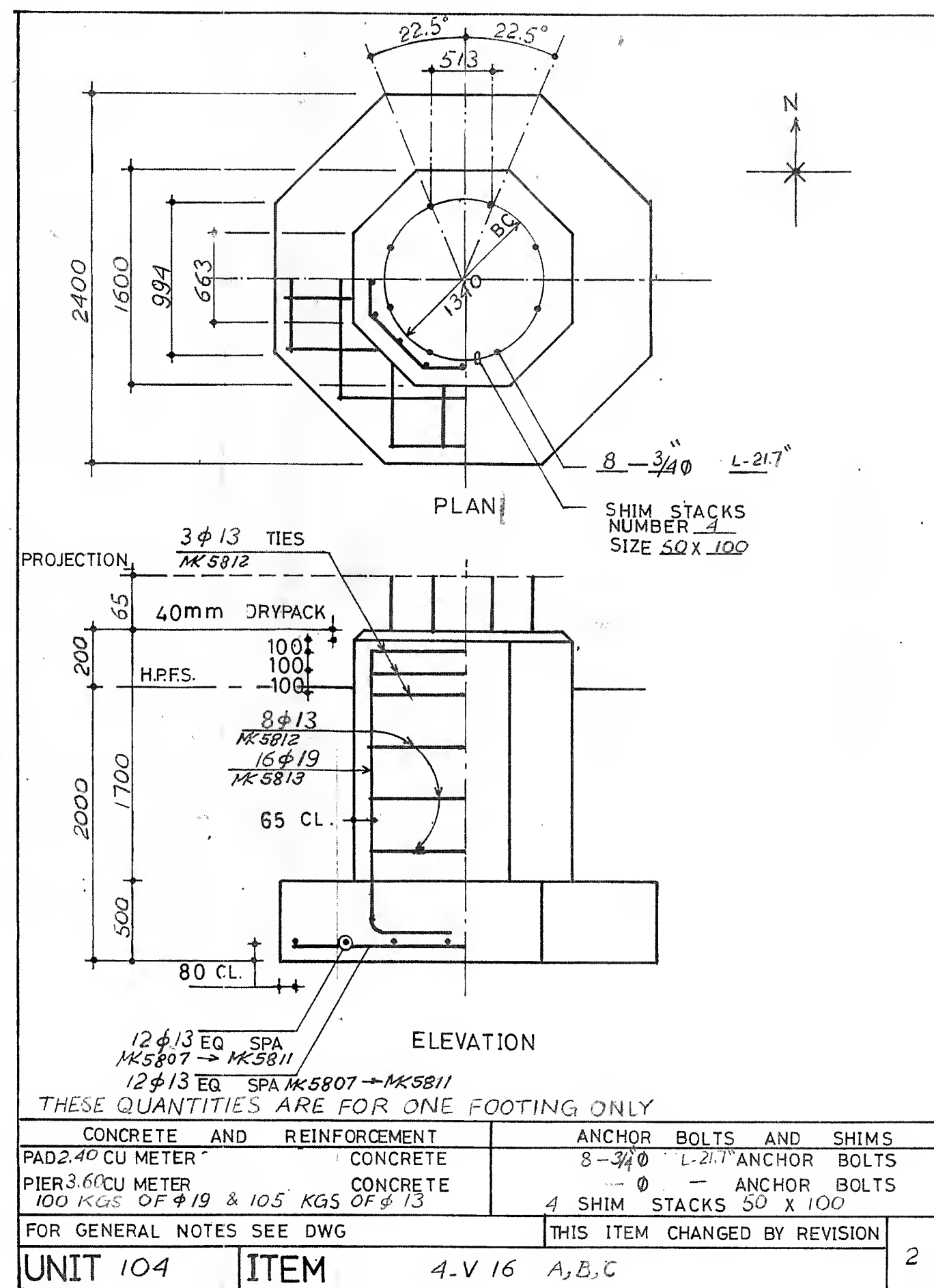
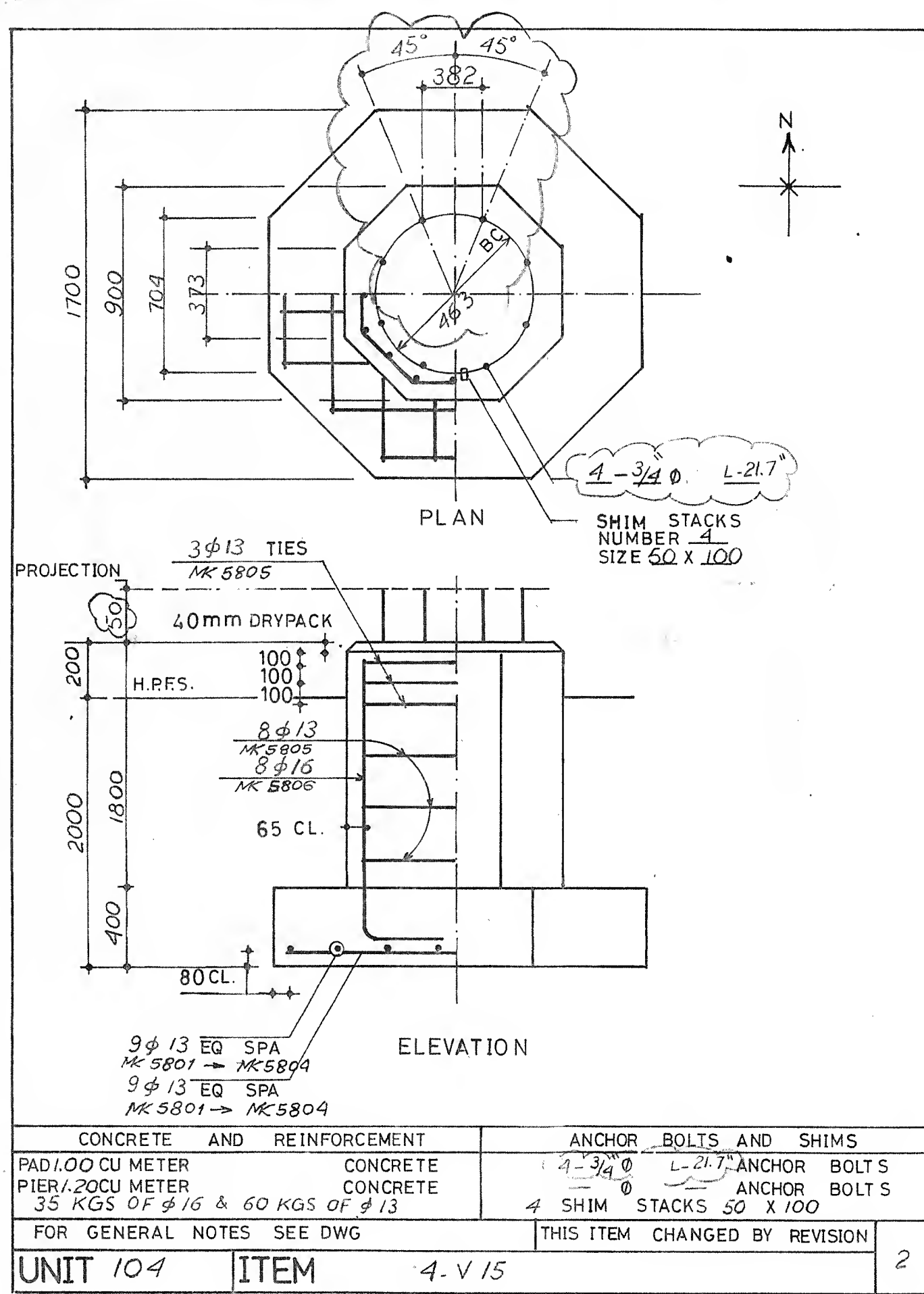
MARK	REQ'D	SIZE	SCH.	RATING	SERVICE	1 TO FACE	REMARKS
50	2	6"	40		SKID	825	
5V	1	4"	40		VALVE	825	
2A	1	2"	80		PIPE	825	
11E	2	2"	60		BRIDGE	825	
11C	1	1"	80		BRIDGE	825	
11B	1	2"	60		BRIDGE	825	
11A	2	1/2"	60		BRIDGE	825	
11G	2	1/2"	60		BRIDGE	825	
11F	1/2	1/2"	60		BRIDGE	825	
11A	1/2	1/2"	60		BRIDGE	825	
11L	2	1/2"	60		BRIDGE	825	
11E	2	1/2"	60		BRIDGE	825	
11C	1	1/2"	60		BRIDGE	825	
11A	1	1/2"	60		BRIDGE	825	

NOTES

1. SURFACE PREPARATION
COMMERCIAL BLAST NEAR WHITE.
2. PAINTING
 - a) PRIME - SELF CURING ETHYL SILICATE INORGANIC
ZINC 1 COAT 2 1/2 MILS.
 - b) FINISH - POLYAMID EPOXY HIGH BUILD ENAMEL
1 COAT 5 MILS. (BY OTHERS)
3. FIELD HYDRO TEST DENOTES FUTURE CORRODED
CONDITION.

34	SUPPORT PL	A156-70	1	FSX60X10	
33	VORTEX BREAKER		1	SEE DWG. GD-21-101-054	
32	PAD	A2830	1	SEE DWG. A156-70	
31	NAME PLATE	A240-304	1	FSX DWG	
30	SKIRT OPENING	A106B	2	6" SCH 40	8" X 140-100
29	DEMISTER	A240-304	1	FK203 YORK K431	1/2" H
28	LADDER RUNG	A136	2	EB 25	
27	FOUNDATION BOLT	A235	8	1" BULKHEAD	TYPE '3'
26	EARTH LUG	A240-304	2	EG-15X120	
25	BRACKET	A2830	2	EB13	
24	LIFTING LUG	A2830	2	EB25 X700X590	
23	LADDER		1	SEE DWG. GD-21-101-054	
22	ANGLE	A235	1	EGX65X8X1/2	
21	WIRE PROTECT	A2830	1	EGX23X110	
20	BASE PLATE	A2830	1	EGX23X110	
19	ACCESS HOLE	A2830	1	1/2" SCH 40 X1941	
18	SKIRT VENT	A106B	1	2" SCH 40 X160	
17	LEVEL SWITCH			2" SCH 40	GD-21-101-054
16	LEVEL SWITCH			2" SCH 40	
15	PRESS. INDIC.			1" SCH X1610	
14	SAFETY VALVE			2" SCH 40	
13	BRIDLE			2" SCH 40	
12	BRIDLE			2" SCH 40	
11	BRAN			2" SCH 40	
10	UT - TV			1/2" SCH 40	
9	VENT			1/2" SCH 40	
8	L.I.R. OUTLET			2" SCH 40	
7	VAP. OUTLET			2" SCH 40	
6	VAP. INLET	A106B	1	2" SCH 40	
5	MAN-HOLE	A156-70	1	2" SCH 40	
4	WASHER	A2830	1	EGX65X120	
3	BRACKET	A2830	2	EGX65X120	
2	UPPER RING	A2830	1	EGX65X120	
1	ANCHOR CHAIR			EGX65X120	

NO.	DESCRIPTION	MAT'L	QTY	SIZE	REMARKS
MATERIAL LIST					
△					
△					
△	REVISED BY AIOC COMMENTS	P81.8.20	100mm		Y.K.SIN
△	REVISED BY AIOC COMMENT	P81.7.23	100mm		Y.K.SIN
△	REVISED FOR APPROVAL	P81.7.4	100mm		Y.K.SIN
NO.	DESCRIPTION	DATE	PRD	CHK'D	APP'D
REVISIONS					
CUSTOMER: CAELIM ENGG CO., LTD.					
TITLE OF PROJECT: GULF OF SUBZ GAS PROJECT SAG SHUREK, EGYPT					
KHIC KOREA HEAVY INDUSTRIES & CONSTRUCTION CO., LTD.					
APPROVED: P.K. Lee	81.2.6	ITEM NO. 4204 A.B			
CHECKED: Y.K.SHN	81.7.15				
DESIGNED: [Signature]	8.9.15	ASSEMBLY DET'L DWG FOR AFTER SEPARATOR			
DRAWN: [Signature]	81.6.30				
BY DATE					
SCALE	DWG NO.	SHEET NO.		REV	



NUMBER	REFERENCE
9211-100-300-2	CONCRETE
9211-100-300-6	CONCRETE ACCESSORI
9211-100-300-7	SHIM AND GROUTING
9211-104-KE-401	PLOT PLAN
	SOIL REPORT
9211-B-104-FD-58	BAR LIST SHEET 1 & 2

- GENERAL NOTES
1. HIGH POINT FINISHED SURFACE (H.P.F.S.) = EL
 2. FOR LOCATION OF FOUNDATIONS SEE DRAWING
 3. EACH ITEM FOUNDATION IS ORIENTED BY INDIV
 4. FOR DETAILS OF ANCHOR BOLTS SEE S
 5. SOIL REPORT SHOULD BE STRICTLY FOLLO
 6. CONCRETE FOOTINGS ARE CLASS 'A' CON
 7. CONCRET FOOTINGS TO BE UNDERLAYE
- CLASS 'D' CONCRETE BLINDING

HOLD VENDOR DRAWING IS NOT SUBM

ESTIMATED MATERIAL	
R.C (M ³)	155 +9
REINFORCING BARS (TON)	12 +0.2
3/4" L-21.7" ANCH. BOLTS	88 +52
1" L-21.7" ANCH. BOLTS	40 +40
50X100 MM SHIM STACKS	66 +6
1" L-32" ANCH. BOLTS	0

No 4-V
B-104-58

3	8/12	- 4-D1 A,B,C WAS CANCELLED	N/M	A	M.
2	3/5	- 4-V4 A,B WAS CHANGED	N/M	I	M.
1	12/20	REVISED AS SHOWN	N/M	I	M.
0	12/20	ISSUED FOR CONSTRUCTION	N/M	A	M.
0	12/20	ISSUED FOR APPROVAL	N/M	A	M.

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IT IS LENT TO THE RECIPIENT FOR HIS CONFIDENTIAL USE ONLY, AND IN
AGREEMENTS FOLLOWING. IN CONSIDERATION OF THE LOAN OF THIS DRAW
INGS AND AGREES TO RETURN IT UPON REQUEST, AND THAT IT SHALL NOT
BE LENT, OR OTHERWISE DISPOSED OF, DIRECTLY OR INDIRECTLY, WITHOUT
CONSENT, NOR BE USED IN ANY WAY DETRIMENTAL TO THE INTERESTS OF BR.

ISSUED FOR CONSTRUCTION	CUSTOMER APPROVAL
BY M.S. DATE 12-22-80	DESIGNED M. HAZEM DRAWN M.S. REVIEWED M.K.
FOR E.G.R.C	AT RAS SHUKHEIR

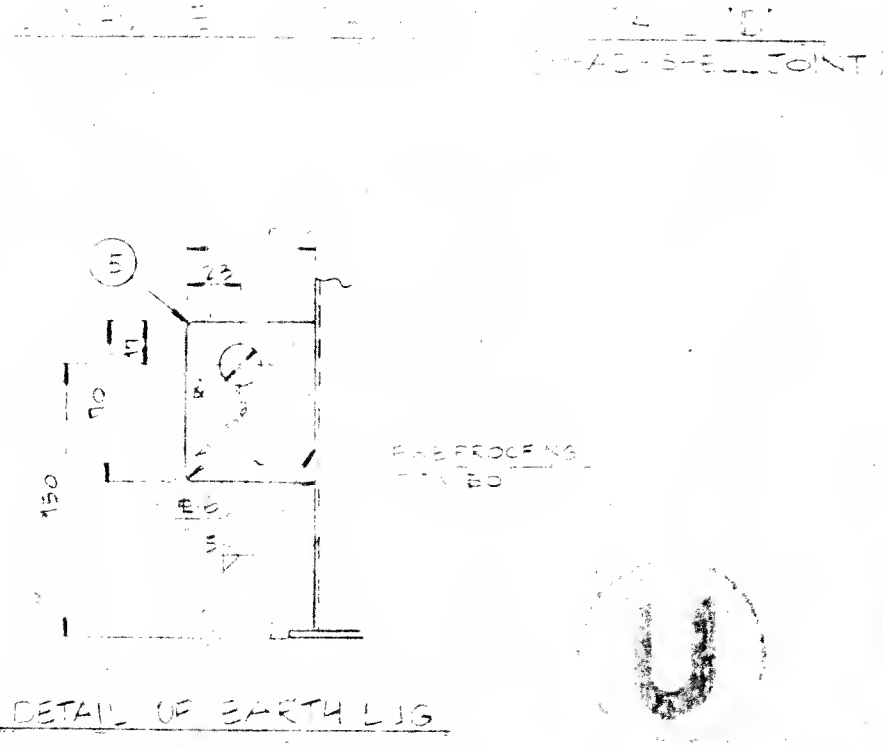
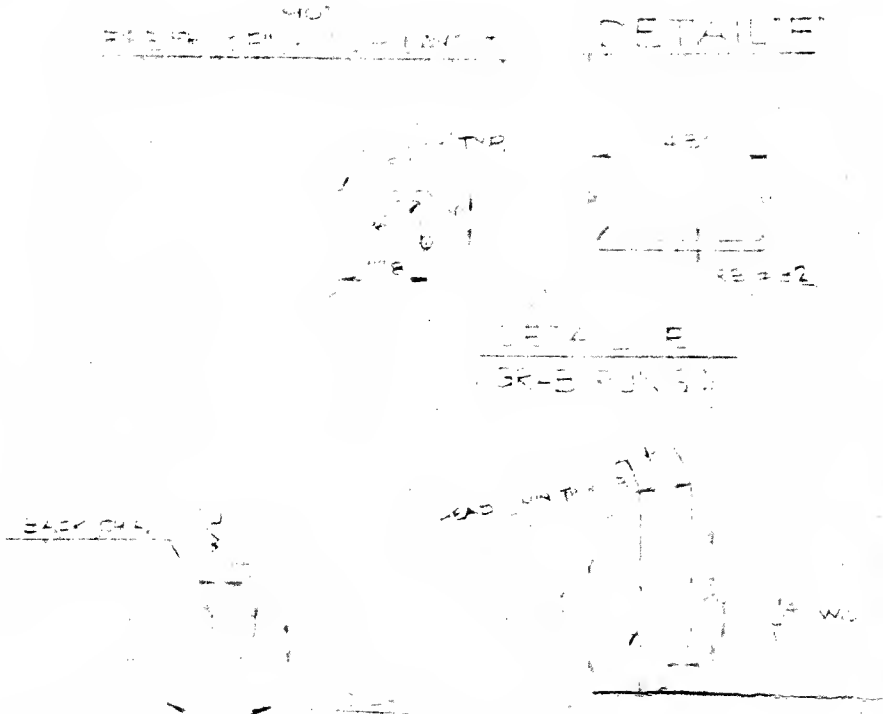
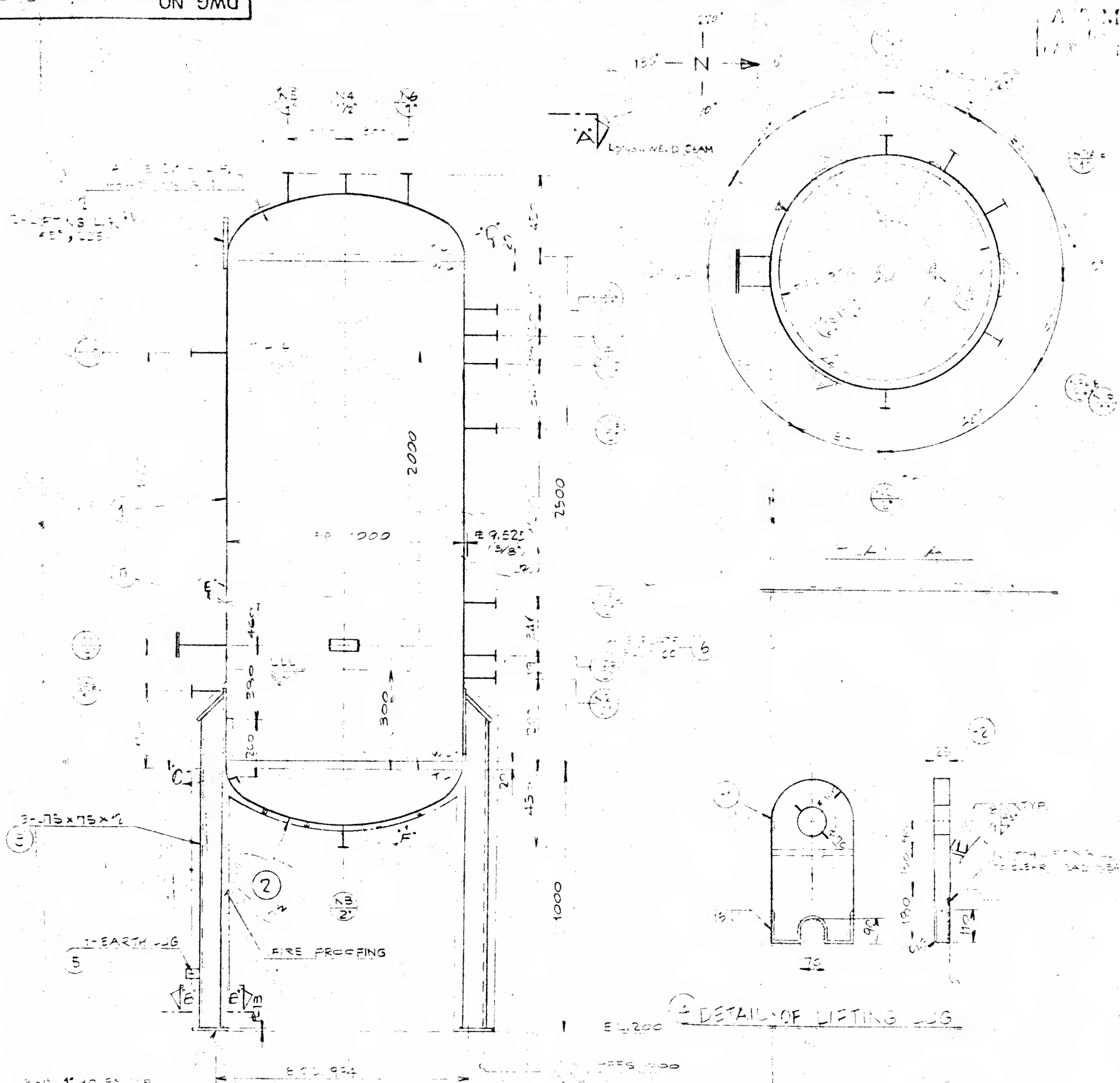
GULF OF SUEZ GAS PRO
MAIN PROCESSING PLAN
VERTICAL VESSEL FOUNDA
4-V3, 4-V4, 4-V15, 4-V16
لهند سيق للصناعات البترولية والكيمياوية

Enppi
ENGINEERING FOR THE PETROLEUM AND PROCESS
SCALE NONE DRAWING NUMBER 9211-104-FD-58
DATE 9-28-80

DWG. NO.

1. A. M. F.

40115

[illegible]

7	FE - FLOOR CLIP A233-C	10	FE - 110 X 112
8	AV - 24 BOLT A207	11	3/4" X 110 X 72-6
9	AV - 24 BOLT A206	12	FE - 110 X 110
10	AV - PLATE A233-B	13	FE - 110 X 110
11	AV - 24 BOLT A207	14	FE - 110 X 110
12	AV - 24 BOLT A207-C	15	FE - 110 X 110
13	AV - 24 BOLT A207	16	FE - 110 X 110
14	AV - 24 BOLT A207	17	FE - 110 X 110
15	AV - 24 BOLT A207	18	FE - 110 X 110
16	AV - 24 BOLT A207	19	FE - 110 X 110
17	AV - 24 BOLT A207	20	FE - 110 X 110
18	AV - 24 BOLT A207	21	FE - 110 X 110
19	AV - 24 BOLT A207	22	FE - 110 X 110
20	AV - 24 BOLT A207	23	FE - 110 X 110
21	AV - 24 BOLT A207	24	FE - 110 X 110
22	AV - 24 BOLT A207	25	FE - 110 X 110
23	AV - 24 BOLT A207	26	FE - 110 X 110
24	AV - 24 BOLT A207	27	FE - 110 X 110
25	AV - 24 BOLT A207	28	FE - 110 X 110
26	AV - 24 BOLT A207	29	FE - 110 X 110
27	AV - 24 BOLT A207	30	FE - 110 X 110
28	AV - 24 BOLT A207	31	FE - 110 X 110
29	AV - 24 BOLT A207	32	FE - 110 X 110
30	AV - 24 BOLT A207	33	FE - 110 X 110
31	AV - 24 BOLT A207	34	FE - 110 X 110
32	AV - 24 BOLT A207	35	FE - 110 X 110
33	AV - 24 BOLT A207	36	FE - 110 X 110
34	AV - 24 BOLT A207	37	FE - 110 X 110
35	AV - 24 BOLT A207	38	FE - 110 X 110
36	AV - 24 BOLT A207	39	FE - 110 X 110
37	AV - 24 BOLT A207	40	FE - 110 X 110
38	AV - 24 BOLT A207	41	FE - 110 X 110
39	AV - 24 BOLT A207	42	FE - 110 X 110
40	AV - 24 BOLT A207	43	FE - 110 X 110
41	AV - 24 BOLT A207	44	FE - 110 X 110
42	AV - 24 BOLT A207	45	FE - 110 X 110
43	AV - 24 BOLT A207	46	FE - 110 X 110
44	AV - 24 BOLT A207	47	FE - 110 X 110
45	AV - 24 BOLT A207	48	FE - 110 X 110
46	AV - 24 BOLT A207	49	FE - 110 X 110
47	AV - 24 BOLT A207	50	FE - 110 X 110
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49	AV - 24 BOLT A207	52	FE - 110 X 110
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51	AV - 24 BOLT A207	54	FE - 110 X 110
52	AV - 24 BOLT A207	55	FE - 110 X 110
53	AV - 24 BOLT A207	56	FE - 110 X 110
54	AV - 24 BOLT A207	57	FE - 110 X 110
55	AV - 24 BOLT A207	58	FE - 110 X 110
56	AV - 24 BOLT A207	59	FE - 110 X 110
57	AV - 24 BOLT A207	60	FE - 110 X 110
58	AV - 24 BOLT A207	61	FE - 110 X 110
59	AV - 24 BOLT A207	62	FE - 110 X 110
60	AV - 24 BOLT A207	63	FE - 110 X 110
61	AV - 24 BOLT A207	64	FE - 110 X 110
62	AV - 24 BOLT A207	65	FE - 110 X 110
63	AV - 24 BOLT A207	66	FE - 110 X 110
64	AV - 24 BOLT A207	67	FE - 110 X 110
65	AV - 24 BOLT A207	68	FE - 110 X 110
66	AV - 24 BOLT A207	69	FE - 110 X 110
67	AV - 24 BOLT A207	70	FE - 110 X 110
68	AV - 24 BOLT A207	71	FE - 110 X 110
69	AV - 24 BOLT A207	72	FE - 110 X 110
70	AV - 24 BOLT A207	73	FE - 110 X 110
71	AV - 24 BOLT A207	74	FE - 110 X 110
72	AV - 24 BOLT A207	75	FE - 110 X 110
73	AV - 24 BOLT A207	76	FE - 110 X 110
74	AV - 24 BOLT A207	77	FE - 110 X 110
75	AV - 24 BOLT A207	78	FE - 110 X 110
76	AV - 24 BOLT A207	79	FE - 110 X 110
77	AV - 24 BOLT A207	80	FE - 110 X 110
78	AV - 24 BOLT A207	81	FE -

NO.	DESCRIPTION	MAKE	SIZE	QTY
MATERIAL LIST				

2	REVISED BY ADOC	11 AUG 1960		
1	REVISED BY ADOC COMMENT	11 AUG 1960		
2	REVISED FOR APPROVAL	11 AUG 1960		
NO.	DESCRIPTION	DATE	ED	WD
REVISIONS				
1	REVISIONS	11 AUG 1960		
2	REVISIONS	11 AUG 1960		
DATE OF REVISION				
REVISIONS				
REVISIONS				

DATE	21.9.16	ITEM NO.	32014
TO	YK SUN	ASSEMBLY & DETAIL	
FROM		POTABLE WATER	
		FOR DRUM	

[illegible][illegible]

1. The following information is provided for the year ended 31 December 2018:

	2018	2017
Revenue	100	100
Cost of sales	(60)	(60)
Gross profit	40	40
Operating expenses	(20)	(20)
Operating profit	20	20
Finance income	5	5
Finance expense	(3)	(3)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

2. The following information is provided for the year ended 31 December 2019:

	2019	2018
Revenue	110	100
Cost of sales	(65)	(60)
Gross profit	45	40
Operating expenses	(25)	(20)
Operating profit	20	20
Finance income	6	5
Finance expense	(4)	(3)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

3. The following information is provided for the year ended 31 December 2020:

	2020	2019
Revenue	120	110
Cost of sales	(70)	(65)
Gross profit	50	45
Operating expenses	(30)	(25)
Operating profit	20	20
Finance income	7	6
Finance expense	(5)	(4)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

4. The following information is provided for the year ended 31 December 2021:

	2021	2020
Revenue	130	120
Cost of sales	(75)	(70)
Gross profit	55	50
Operating expenses	(35)	(30)
Operating profit	20	20
Finance income	8	7
Finance expense	(6)	(5)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

5. The following information is provided for the year ended 31 December 2022:

	2022	2021
Revenue	140	130
Cost of sales	(80)	(75)
Gross profit	60	55
Operating expenses	(40)	(35)
Operating profit	20	20
Finance income	9	8
Finance expense	(7)	(6)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

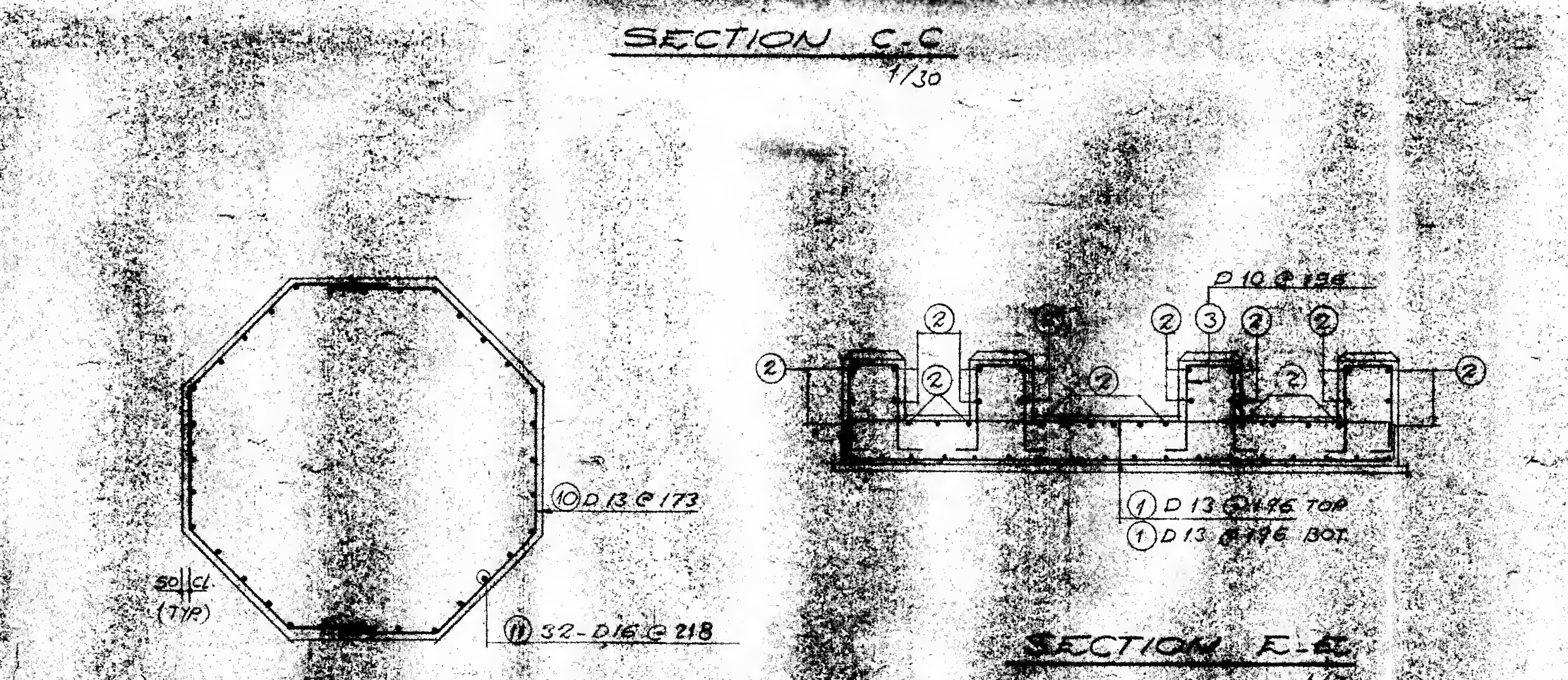
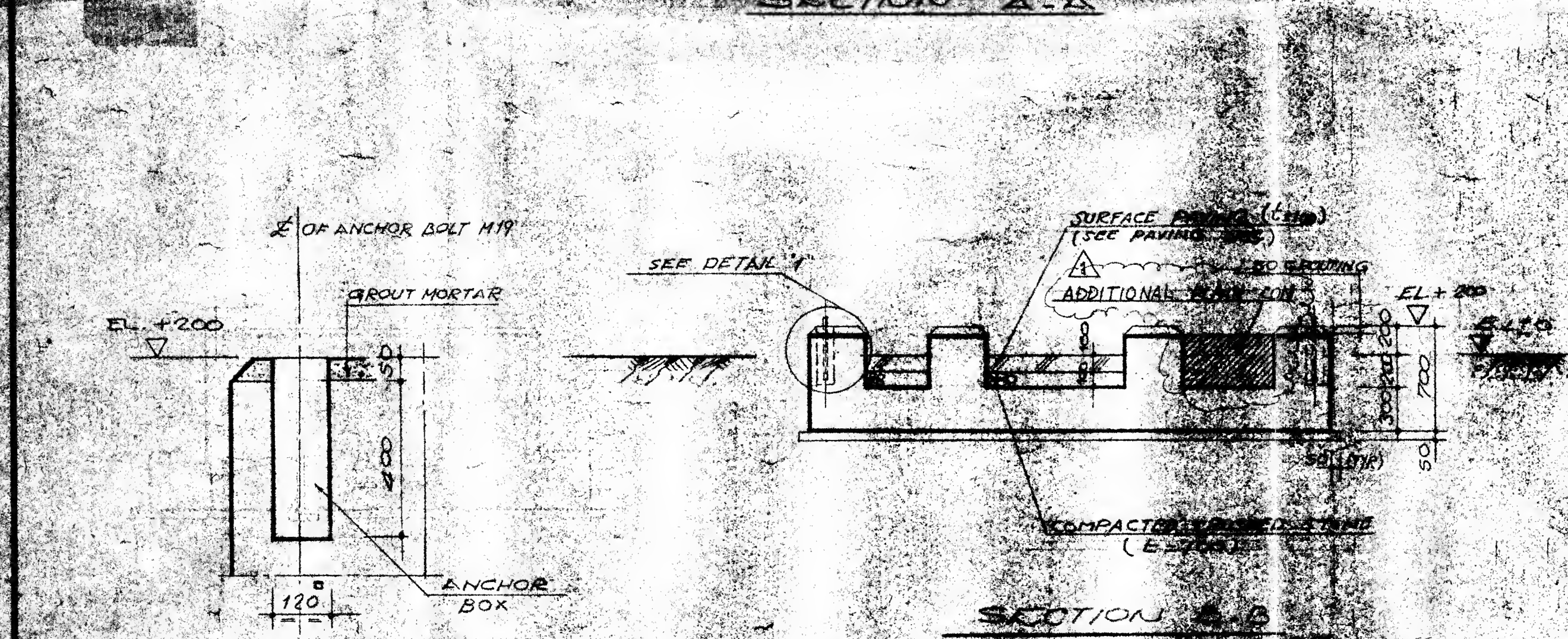
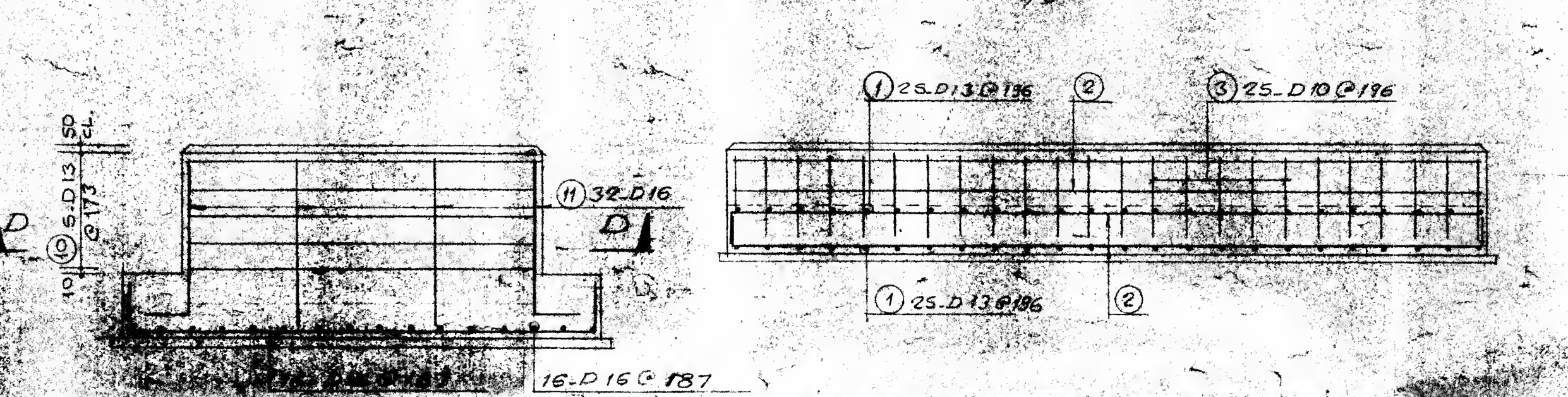
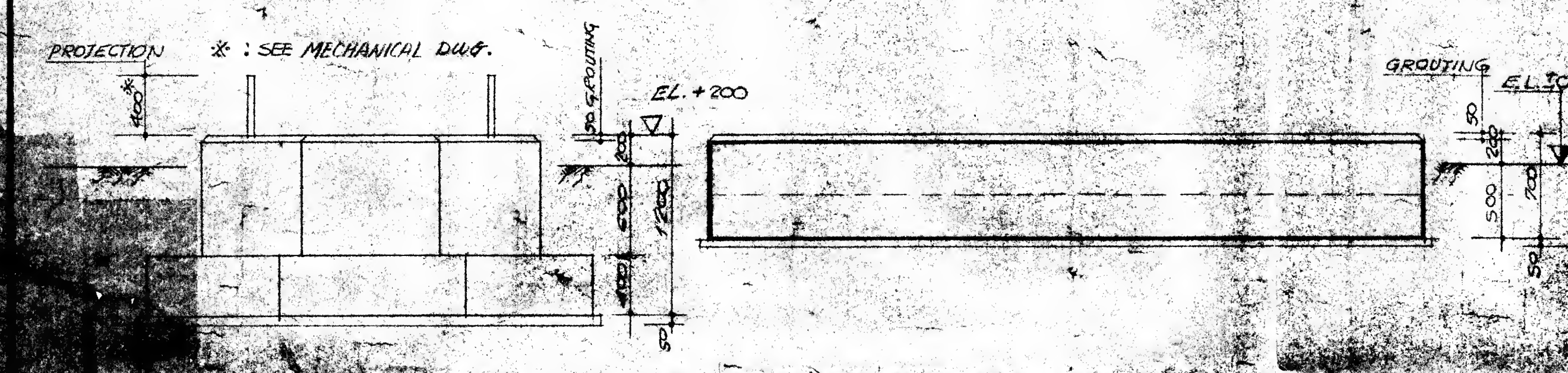
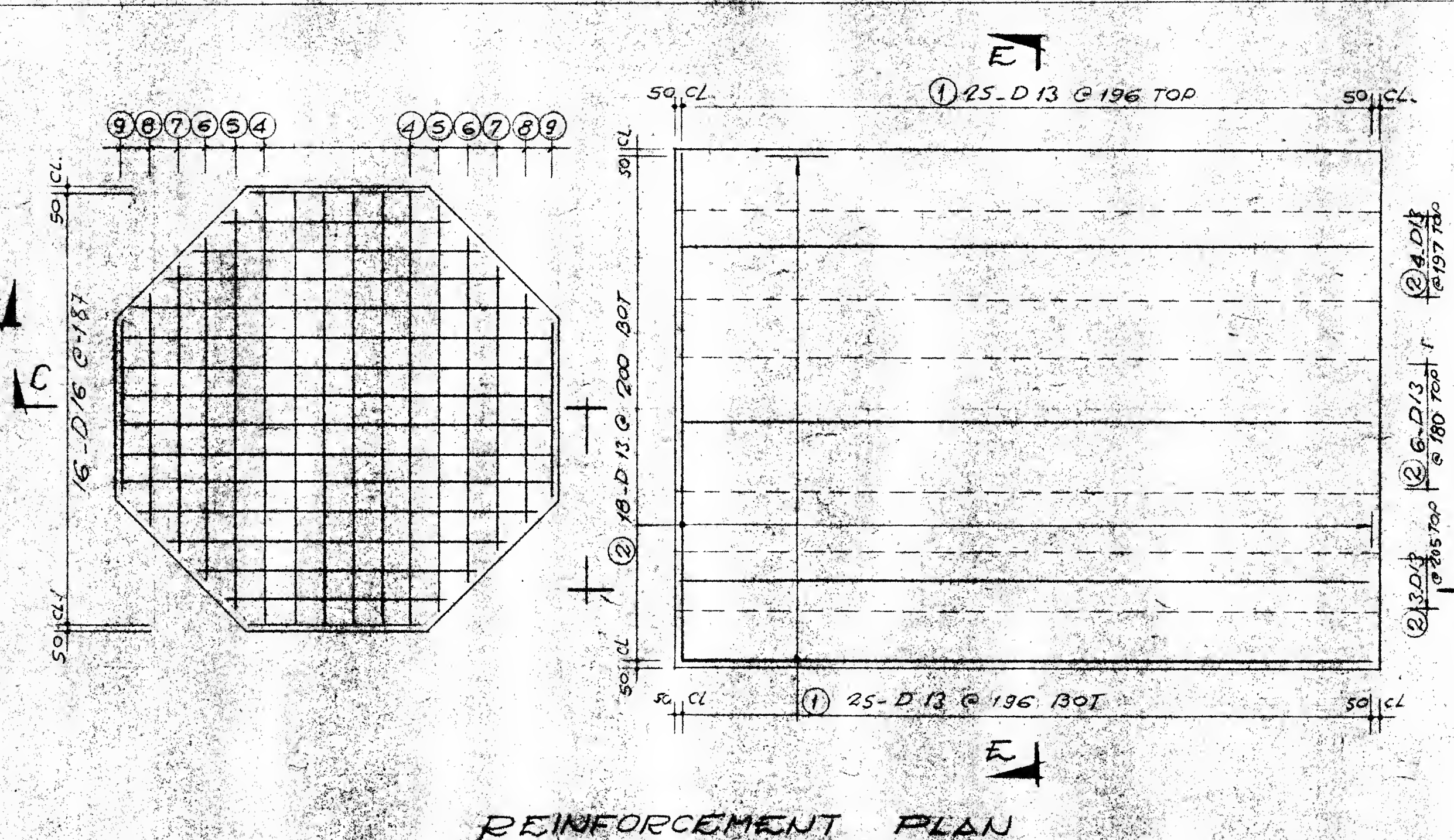
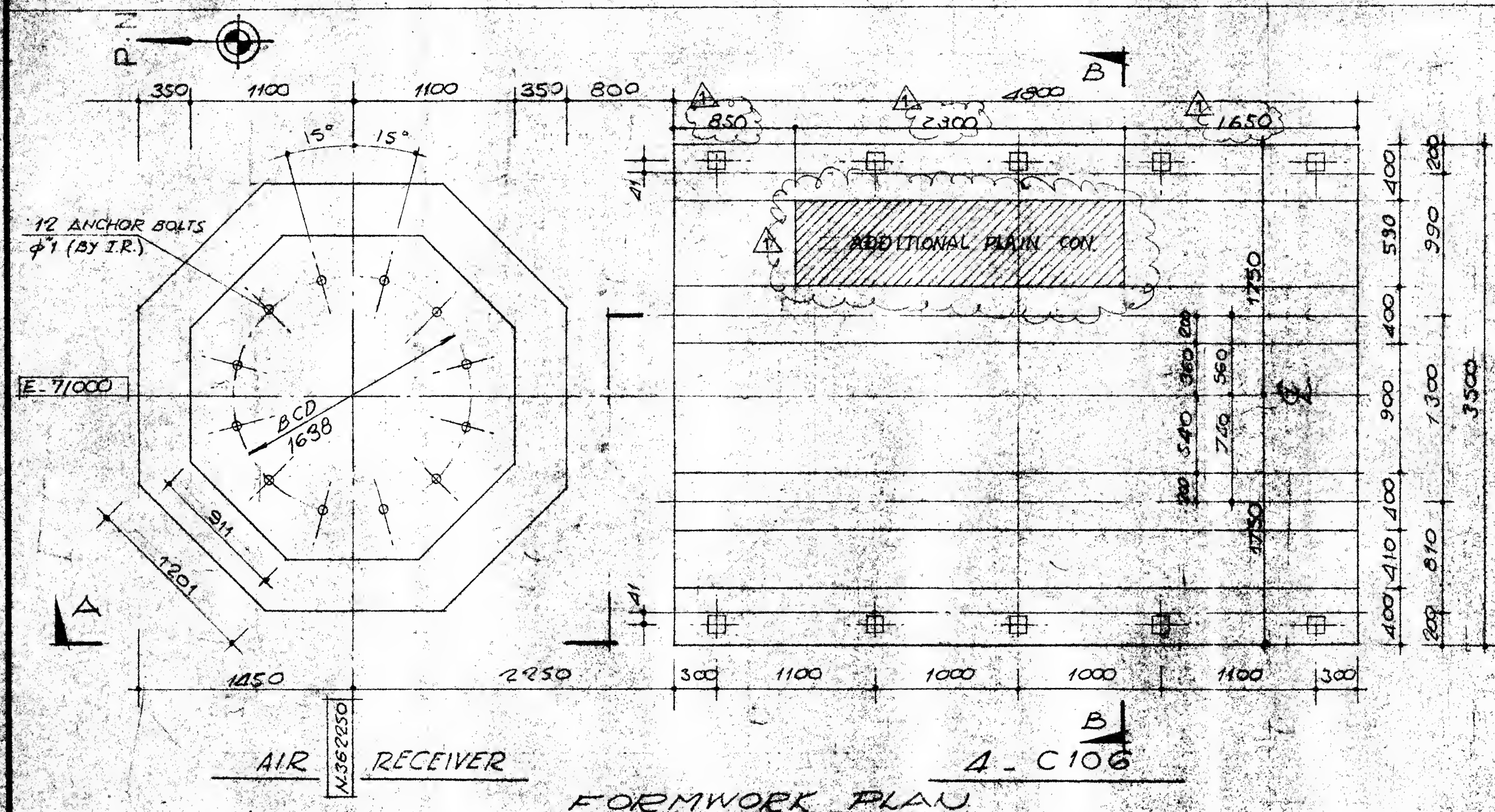
6. The following information is provided for the year ended 31 December 2023:

	2023	2022
Revenue	150	140
Cost of sales	(85)	(80)
Gross profit	65	60
Operating expenses	(45)	(40)
Operating profit	20	20
Finance income	10	9
Finance expense	(8)	(7)
Profit before tax	22	22
Tax expense	(5)	(5)
Profit after tax	17	17

7. The following information is provided for the year ended 31 December 2024:

	2024	2023
Revenue	160	150
Cost of sales	(90)	(85)
Gross profit	70	65
Operating expenses	(50)	(45)
Operating profit	20	20
Finance income	11	10
Finance expense	(9)	(8)
Profit before tax	22	22
Tax expense	(5)	(5)

NOZZLE AND ORIFICE FLOW



DETAIL 1.

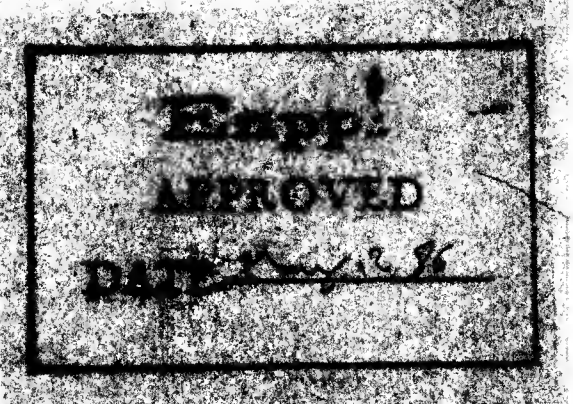
ITEM	A	B	C	D	E	F	G	H
1	13	196	3800	50	1	50		3440
2	13	5700	48	1	29			4150
3	10	196	1740	100	1	100		

BAR BENDING SCHEDULE

ITEM	A	B	C	D	E	F	G	H
1	16	187	3400	12	1	12		2800
2	16		3250	4	1	4		1650
3	16		2875	4	1	4		2275
4	16		2500	4	1	4		2100
5	16		2125	4	1	4		1725
6	16		1750	4	1	4		1350
7	13	173		10	1	10		2175
8	13	218		32	1	32		300

REFERENCE DRAWINGS		
NAME OF DRAWINGS	SHEET No.	REV.
FOUND. LOCATION PLAN	GOS-AC-1400-53.011	
CONCRETE SPECS.	GOS-AC-20.006	
CONCRETE ACC.	GOS-AC-20.010	
SHIM & GROUTING	GOS-AC-20.007	

NOTE:
ALL DIMENSIONS ARE IN M.M.



NOTES:
A... MARK OF REINFORCEMENT.
B... DIAMETER OF REINFORCEMENT.
C... SECTION.
D... STRAIGHTENED LENGTH OF REINFORCEMENT.
E... NUMBER OF REINFORCEMENT PER ELEMENT.
F... NUMBER OF ELEMENT.
G... TOTAL NUMBER OF REINFORCEMENT.
H... FIGURE.

LIST OF MATERIALS

DESCRIPTION	UNIT	QUANTITY	REMARKS
REINFORCED CONC.	M ³	13.51	
LEVELLING CONC.	M ³	25.09	
FORMWORK	M ²	28.76	
EXCAVATION	M ³	17.58	
BACK FILLING	M ³	4.51	
BAR D-10	KG.	97.44	
BAR D-13	KG.	476.61	
BAR D-16	KG.	206.55	

REVISION	DESCRIPTION	DATE	CHKD
1	REVISED AS NOTED	21.07.81	N.H.
2	ISSUED FOR APPROVAL	22.08.81	N.H.
3	ISSUE		

1401 EGPC

SELF OF SUEZ GAS PLANT PHASE

FOUNDATION DETAILS FOR C106 & AIR RECEIVER (A1, A2)

SCALE: 1/20

Hitachi Zosen

CIVIL ENGINEERING DEPARTMENT
OSAKA, JAPAN

DATE: APR. 19/82

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